The Journal

OF THE KANSAS MEDICAL SOCIETY

IN THIS ISSUE

FACTORS TO BE CONSIDERED IN THE CONSTRUCTION OF THE DIET OF THE OLDER CHILD — Alan Brown, M.D., and E. Chant Robertson, M.D., Toronto, Canada . . . . . Page 237

RETROBULBAR NEURITIS — Louis R. Haas, M.D., Pittsburg, Kansas . . . . . Page 244

PEPTIC ULCER — W. J. Walker, M.D., Topeka, Kansas . . . . . Page 251

CARCINOMA OF THE STOMACH—James S. Hibbard, M.D., Wichita, Kansas . . . . . Page 256

POLYURIA AND BRAIN TUMOR — L. E. Maurer, M.D., and Frank Neff, M.D., Kansas City, Missouri . Page 259

COMPLETE TABLE OF CONTENTS . . . . Page IV

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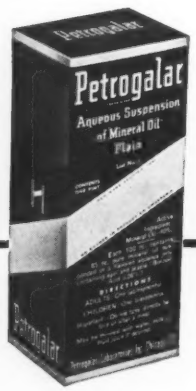

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TABLE OF CONTENTS

JUNE, 1942

ORIGINAL ARTICLES

Factors to be Considered in the Construction of the Diet of the Older Child—Alan Brown, M.D., and E. Chant Robinson, M.D., Toronto, Canada 237

Retrobulbar Neuritis — Louis R. Haas, M.D., Pittsburg, Kansas 244

Peptic Ulcer—W. J. Walker, M.D., Topeka, Kansas 251

Carcinoma of the Stomach—James S. Hibbard, M.D., Wichita, Kansas 256

Polyuria and Brain Tumor—L. E. Maurer, M.D., and Frank Neff, M.D., Kansas City, Missouri 259

EDITORIALS

Military Needs for Physicians 255

Society Committees 255

Robert B. Stewart 256

War Production 256

MISCELLANEOUS

President's Page 254

Tuberculosis Control 260

News Notes 262

Book Nook 274

Auxiliary 280

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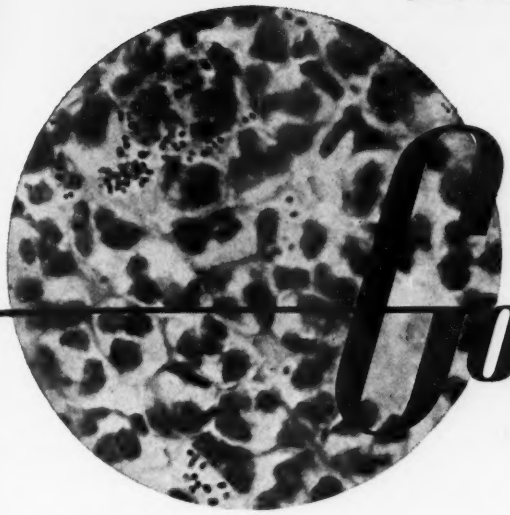

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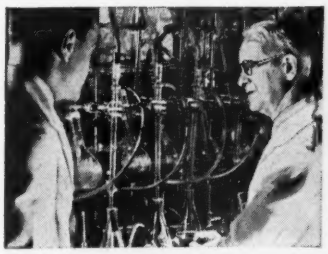

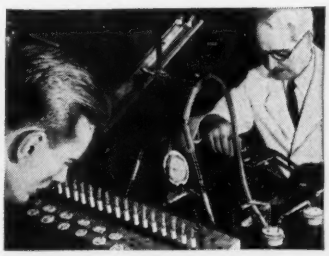

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The Military Surgeon, Vol. 89, No. 1, p. 5, July, 1941

****J.A.M.A., 93:1110—October 12, 1929***
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FACTORS TO BE CONSIDERED IN THE CONSTRUCTION OF THE DIET OF THE OLDER CHILD*

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The growing child and the pregnant and nursing mother need proportionately more of the dietary essentials than the rest of the population. As Sebrell has aptly put it, children are more sensitive to their nutritional environment than unencumbered adults. Therefore for the optimum growth, development and health of a child, it is extremely important not only to provide diets which contain sufficient amounts of all the essentials, but also to see that they are taught to eat them. In some conditions, for example coeliac disease, the child is unable to utilize some of these essentials in the normal manner, but recent discoveries which will be described later have disclosed very satisfactory ways of overcoming their handicaps and meeting their nutritional needs.

It is common knowledge that the complete lack of vitamin C for at least three to four months results in the development of scurvy in an infant. A relatively small amount of vitamin C, about seven mgms. per day (two teaspoonsful of orange juice), will prevent the development of this disease, but much larger doses, something in the neighborhood of thirty mgms. (two ounces of orange juice) per day are recommended by the Committee on Nutrition of the National Research Council of Washington, as the optimum daily amount for normal infant health. A simple test carried out on guinea pigs illustrates this point. If a young guinea pig, approximately 300 grams in weight, is given a scorbutic diet plus four cc. of tinned tomatoes daily, his growth proceeds at a normal rate and at the end of eight weeks he weighs about 470 grams. If another pig of the same age and weight is given the same scorbutic diet but with only one-quarter as much of the tinned tomatoes per day (i.e. one cc.) he loses weight instead of gaining and at the end of the eight weeks he is emaciated and generally in poor condition. However he has not developed scurvy. There was sufficient vitamin C in his small daily dose of tomato juice to prevent him from developing scurvy, but not enough for optimum growth and health. The same situation holds true for most, if not all, of the other vitamins. A relatively small amount will prevent the developmen of the dramatic deficiency diseases but much more than that amount is needed for optimum, or in other words, the best possible nutrition.

The dietary surveys which were recently carried out in Toronto by the Canadian Council on Nutrition[1] have shown even among families having incomes ranging from $1500 to $2400 a year, that many of the dietary essentials are eaten in insufficient amounts for the best of health, growth and vigour. Our eating habits are similar to yours and there is little doubt but what similar conditions would be found here. What were the food essentials that were most frequently eaten in insufficient amounts? Vitamin B_1 and vitamin C were the most frequently and markedly deficient. The teen-age girls ate too little calcium also. The iron needs of the growing children were often not met and the same holds true no doubt for vitamin D, iodine and riboflavin. It would be well therefore to discuss these essentials in more detail than the others which are much less seldom lacking.

Modern day diets because of our fondness for white flour products and sugar, are more apt to be low in vitamin B_1 or thiamin than any other dietary essential. They are also low in pyridoxine (vitamin B_6) which as a rule occurs in the same foods as thiamin. On the other hand, the ten per cent or so of the population who use whole grain cereals and whole wheat bread do not suffer from this lack of the B vitamins because these products contain generous amounts of them. These foods also contain valuable amounts of iron, but all these essentials are found in the bran and germ almost exclusively and these are the very parts that are discarded in the making of white flour. To be exact they aren't actually discarded, for the bran and germ are sold to

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the farmer as pig food. It is not surprising therefore that pork is a rich source of the B vitamins. When we eat white flour, the pig gets the best part of the wheat.

The whole grain products are numerous—they include whole wheat flour, rolled oats or wheat, wheat flakes, cracked wheat, rye flour, brown rice and the pre-cooked shredded whole wheat products. It is worth knowing at this time, when it is essential that we all reduce our spendings on inessentials, that the bulk home-cooked whole grain porridge stuffs cost approximately one-fifth as much per serving as the pre-cooked packaged cereals. Incidentally the toasted flaked cereals contain no vitamin B_1 at all. Even toasting bread destroys about twenty per cent of its content of this vitamin. The whole grain products are more laxative than the highly purified whiter cereals, but in normal individuals this does not cause trouble. Wheat germ, as you would expect, is extremely rich in the B vitamins. It is an excellent plan to incorporate at least one tablespoon of wheat germ in the daily diet. This can be added to cooked cereals, preferably shortly before serving, or in amounts up to twenty-five per cent to white flour which is to be made into muffins, tea biscuits, etc. When cooked in this way, some twenty per cent of the thiamin is destroyed, but even after that loss a great deal still remains. One tablespoon of wheat germ contains approximately eighty International Units of vitamin B_1, which is almost one-sixth of our total daily requirements.

Vitamin B_1 plays many roles in the body. It is necessary for normal growth—although it is not unique in this regard. When diets low in this vitamin are eaten anorexia and intestinal hypotonia frequently occur. It has also been shown that when the diet is very low in this factor, the body is unable to completely metabolize carbohydrates. Instead of being broken down to Co_2 and H_2O, they stop at the pyruvic acid stage. There is evidence that this accumulation of pyruvic acid is harmful, and of course it is plain that under such conditions the body is wasting some of its food. Several investigators have demonstrated clearly that individuals living on low vitamin B_1 dietaries lack physical energy, are quickly fatigued and suffer from mental depression and apathy.

As it is apparently impossible to persuade the English speaking races to use more whole wheat bread, as the British found after an extensive and clever advertising campaign during the early part of the war, other expedients have had to be used in order to increase the consumption of the B vitamins. In the United States and Great Britain you have been fortifying white flour with one, or it may be two or more of these factors. Another solution to this problem has been developed in Canada as the result of cooperative research carried out by the Nutritional Research Laboratory of the Hospital for Sick Children of Toronto, by the Dominion Departments of Agriculture, and Pensions and National Health, of Ottawa, and by some of the milling companies.[2] Without the necessity of buying new milling machinery a simple process has been devised whereby a white bread can be produced which contains practically as much of the B vitamins and probably also as much iron as the so-called whole wheat bread, which always contains at least one-third white flour. This is because the new type of white flour contains more of both the aleurone (sub-bran) layers and the germ. It is now generally available in Canada under the name of "Canada Approved Vitamin B White Bread and Flour". By this method a large fraction of all the B vitamins and minerals in the whole wheat are retained. In fortified white flour, practically all of the B vitamins and minerals are removed and then one, or at most three, are added again.

Other good sources of the B vitamins are liver, kidneys, pork, eggs, vegetables (especially the legumes and green vegetables) peanut butter and milk. There are four members of the B complex that are now known to be essential for human health, namely thiamin or vitamin B_1, riboflavin or vitamin B_2, nicotinic acid and pyridoxin or vitamin B_6. Some of the above-mentioned foods are richer in some of these vitamins than others. Milk is a particularly valuable source of riboflavin. In fact unless a pint of milk is taken daily it is very difficult to meet our needs for this factor. This vitamin is readily destroyed by light, so that bottles of milk should not be kept in a light place. Of all these foods, the whole grain products and liver are probably the most neglected. You would be wise to urge your patients to take one serving of a whole grain cereal, preferably fortified with wheat germ, per day; to use only whole wheat or the new vitamin rich white bread and also to serve liver once a week. Other foods containing whole wheat flour should be recommended also. In many cases it will be necessary to train the children to eat these foods. A conservative estimate of the daily needs of children and unencumbered adults is about 500 International Units of vitamin B_1 per day. (The Committee on Food and Nutrition, National Research Council, United State of America, recommends for children one to twelve years, 200-400 International units; over twelve years and adults, 400-766; pregnancy and lactation 600-766). If the individual takes one and one-fourth pints of milk, four ounces beef, four ounces cooked potatoes, four ounces vegetables (average of six common vegetables), six ounces of fruit (average of three common fruits), he receives in this fraction of his diet

about 300 International Units. A half cup of cooked rolled oats adds fifty-five units more, a tablespoon of wheat germ another eighty units, and four slices of whole wheat bread about 100 more, giving a total of 535 International Units. If however, the individual chooses cornflakes or farina for breakfast and uses only white bread, he will obtain only about 325 International Units per day. Further it is known that the needs for vitamin B_1 go up as the non-fat calories in the diet increase.

It is possible that in your country where citrus fruits and their tinned juices are produced in such large quantities, your growing children will be better provided with vitamin C than ours. It is recommended by the Committee on Nutrition of the National Research Council of Washington, that children from one to twelve years of age receive thirty-five to seventy-five mgms. of this vitamin per day (two, increasing to five ounces of orange juice), and that those over twelve and also adults, receive from seventy to 100 mgms. daily (five to seven ounces of orange juice). Fresh or tinned citrus fruit juices are about equally rich in vitamin C and contain approximately fifty mgms. in three and one-half ounces. Work that has been carried out under the direction of Drake[4] in our laboratory has shown that there is no appreciable decrease in the vitamin C in the first forty-eight hours after the can is opened.[3] Tomatoes or tomato juice contain only about two-fifths as much C as the citrus fruit juices. Raw cabbage and the other members of the cabbage family are also rich in C, providing some sixty mgms. in three and one-half ounces (that is in about one cup). Strawberries, raspberries, currants and canteloupe are also good sources of this vitamin. Most of the green vegetables and turnips and potatoes contain valuable amounts also. To conserve the maximum amount of this vitamin the foods should be cooked for the minimum length of time and in the least amount of water possible; the water should always be used in some way. Unfortunately apples, pears, peaches and grapes are low in vitamin C. Pineapple juice contains about one-quarter as much as orange juice and apple juice only about one-fiftieth as much.[4] In order to get 100 mgms, of vitamin C per day, generous amounts of the foods rich in C are needed. There is good evidence that orange juice and tomato juice contain other antihemorrhagic principles in addition to vitamin C.

About eighty per cent of the calcium in a normal child's diet comes from milk or cheese. Milk of course should provide most of it. It is generally believed that children under twelve years of age retain the maximum amount of calcium if their intake is about one gram per day. This is provided by one-quart of milk (thirty ounces) or four ounces of cheese. It seems likely that the rapidly growing older child should receive about fifty per cent more calcium per day. Many of these children do not take that much, partly because of the appeal of the ubiquitous soft drink and partly because of the girls' fear of becoming fat. Our teen-age girls are frequently short of calcium.

If the child is given one regular daily dose of one of the fish liver oils or some other source of vitamin D during the winter, he is able to use the calcium and phosphorus in his meals more economically than when this vitamin is lacking. Work carried out in Toronto by Tisdall and his associates has shown that vitamin D is a factor in the prevention of dental decay.[5] Two groups of children ranging in age from five to fifteen years were observed over a period of one year. The diets in both cases were exactly the same, with the exception that the one group received additional vitamin D daily. X-rays were taken and instrumental examinations of the teeth were made without any knowledge as to which group the children belonged. When the examinations were completed the results were tabulated and it was found that the number of markedly progressive cavities and the number of new cavities were twice as frequent in the children who did not receive an adequate supply of vitamin D as in those who did. This is evidence of the need of vitamin D past the age of infancy. If it is not possible to expose children to sunshine throughout the year, we strongly recommend that some vitamin D be administered not only during the age of infancy but throughout the whole of childhood.

Our knowledge of the iron requirements of the child is in a state of transition. The excellent work of Sherman done many years ago indicated that about fifteen milligrams of iron were necessary daily for the growing child. However, work done in Wisconsin and by Summerfeldt[6] in our department shows that we cannot simply consider iron in terms of the total amount in the food. We have found that there is a marked variation in the availability of iron in different foods. For these reasons in the future it will be necessary to consider iron not only from the standpoint of the total iron content of the foods given, but from the standpoint of the availability of the iron administered. Vegetables, especially the legumes and green vegetables, fruits, whole grain cereals, liver, kidney, meat, eggs and molasses are our richest sources of iron in food.

The third mineral element which requires special attention in regard to its administration in our part of the country is iodine. The chief source of iodine is sea-food, but due to our distance from the sea we have to take special measures for its incorporation

in the diet. This is done through the administration of iodized salt.

Thirteen of our dietary essentials are minerals, but provided sufficent calcium, iron and iodine are eaten in our foods, the other ten minerals will be present in adequate amounts also.

Vitamin A is present in many foods such as whole milk, cream, butter, eggs and liver; and carotene, which our bodies can convert into vitamin A, is present in the coloured vegetables. Actually we can change only about forty per cent of the carotene that we ingest into vitamin A, but the green and orange vegetables are so rich in this substance that they usually constitute the major source of our vitamin A. As a general rule the more orange or green the vegetable, the more vitamin A value it has. Carotene is a bright orange substance but in the green vegetables this colour is masked by the green chlorophyll. It is recommended that two vegetables besides potatoes be eaten daily. The raw and coloured ones are especially valuable. Vitamin A is found in such a variety of foods, that a deficiency of it is very rarely encountered.

We have obtained no evidence that the average Canadian child receiving a diet at all reasonable suffers from a lack of protein. It is usually considered that fifteen per cent of the calories supplied should be in the form of protein, and fifty per cent of this protein requirement should be grade A protein, that is, protein obtained from such foods as milk, meat, fish, eggs and cheese. The grade A protein requirements will almost be fulfilled if the child receives thirty ounces of milk daily.

If the child receives thirty ounces of milk daily containing from 3.5 to four per cent fat, along with one ounce of butter, his fat requirements for normal nutrition will be fulfilled.

We have never found any evidence of a child receiving a diet containing too small a percentage of carbohydrate. The ease with which we obtain purified carbohydrates in the form of sugars and highly milled flours accounts for this. In fact the greatest error which we find today is an excess of purified carbohydrate. In some diets, from thirty to fifty per cent of our calories are in the form of purified flours and sugars, which as a result of their purification are lacking in most of the minerals and vitamins.

It is recommended that for normal children the diet contain daily: (1) Approximately one quart (thirty ounces) of milk; (2) One generous serving of a food rich in vitamin C, i.e. orange or grapefruit juice, tomato juice or raw cabbage; fruit exclusive of jam at another meal. Two vegetables besides potato, including coloured or raw vegetables. (3) One serving of a whole grain cereal or porridge stuff, preferably with wheat germ added. Only whole wheat or vitamin rich white bread should be used. (4) One serving or more of meat, fish, egg or fowl. Eggs three or four times a week or oftener; liver or kidney once a week. (5) Use iodized salt exclusively. (6) One regular dose of a good source of vitamin D during at least the six colder months of the year.

COELIAC DISEASE

No discussion of the nutritional disturbances of childhood is complete without reference being made to coeliac disease and its allied conditions. While coeliac disease begins in infancy, usually toward the end of the first and during the second year of life, it usually continues into the childhood years and frequently presents a major nutritional problem up to ten or twelve years of age.

Coeliac disease was originally described by Samuel Gee in 1888 as a nutritional disturbance characterized by generalized body wasting, protuberant abdomen and the passage of large, foul-smelling, greasy stools. Investigations into the disturbed physiology of coeliac disease revealed that a defect existed in the absorption of both fat and carbohydrate from the intestine. The unabsorbed fat in the stool is responsible for the greasy, oily appearance and the unabsorbed carbohydrate for the bubbly, frothy character which appears at times. The proteins of the food alone are absorbed in normal fashion.

Gee[7] considered coeliac disease to be a definite clinical entity due to some single undetermined cause. As investigation of the condition proceeded, however, it became apparent that several different underlying conditions could be responsible for the generalized wasting, protuberant, abdomen and characteristic stools which had been considered characteristic of the disease.

Largely due to the interest and study of this condition by the late Kenneth D. Blackfan of Harvard, a new concept of the disease began to appear. Blackfan[8] recognized the multiple etiology of the condition described as coeliac disease and suggested that an individual showing the characteristic clinical evidences should be labelled as presenting the coeliac syndrome of symptoms. He noted that in a certain number of these patients the disease came on very shortly after birth, was very severe, often accompanied by evidences of chronic pneumonia and almost invariably resulted in death at an early age.

A generalized fibrosis of the pancreas with obstruction and dilatation of the pancreatic ducts into cyst-like spaces was found in these patients when they came to autopsy. Andersen of New York perfected a visiosometric test by which duodenal contents could be analysed for activity of pancreatic

enzymes. Using this test it became possible to diagnose these cases of fibrosis of the pancreas during life since these cases were invariably accompanied by a gross reduction or complete absence of pancreatic lipase, amylase and trypsin. Here then, was the first attempt at a classification of the conditions thrown together by Gee under the name of coeliac disease. These patients became known as individuals suffering from a coeliac syndrome of symptoms secondary to fibrosis of the pancreas.

The second group to be recognized as a clinical entity were infants in whom the symptoms of the coeliac syndrome began after an infectious process had been present for some weeks. It was demonstrated that in these cases alleviation of the symptoms would occur when the infection was removed. There seems little reason to believe that any one type of infection is likely to preface the coeliac syndrome of symptoms. Repeated acute infections, or lower grade continued subacute or chronic infections of the nasopharynx, ears, kidneys, have all preceded the development of the characteristic physical signs and symptoms.

A third group of cases was found to occur due to certain intestinal anomalies usually associated with a partial obstruction of the small bowel. These were relieved only by operation.

A fourth group was seen occasionally in infants suffering from enlargement of the mesenteric glands causing partial obstruction to the intestine. The total of these four groups, however, remained a small percentage of the cases presenting the coeliac syndrome of symptoms. The remainder, in whom no underlying cause can be recognized, are considered to be suffering from primary coeliac disease. It is primary coeliac disease which is most likely to present a severe problem in childhood.

In the past few years comprehensive studies of the pathogenesis of primary coeliac disease have taken place. It was known that two defects occurred —in carbohydrate metabolism and in fat metabolism. Crawford in 1938[9] demonstrated that the defect in carbohydrate metabolism was due to defective absorption. May & McCreary[10] in 1940 showed that these patients with primary coeliac disease showed abnormal gastro-intestinal motility. They were able to demonstrate a delayed emptying of the stomach and impaired segmental peristalsis in the jejunum and ileum. They found that the defect in absorption of carbohydrate varied with the degree of change in intestinal motility and when the intestinal motility was returned to normal by artificially stimulating peristalsis (with mecholyl) the absorption of carbohydrate could be returned to normal.

When these same investigators[11] studied the defect in fat metabolism they were able to show that it, too, was due to a defect in absorption from the intestinal tract. Returning the segmental peristalsis of the gastro-intesinal tract to normal did not, however, improve the ability of these patients to absorb fat as it had carbohydrate. In systematic fashion all of the substances physiologically necessary for the absorption of fats were given to these patients with coeliac disease and their ability to absorb fat measured. Excess bile salts, pancreatic extracts, previous emulsification of the fat, mecholyl, were all added simultaneously without any improvement in the ability of these patients to absorb fat from the intestine.

Finally because of the fact that the picture of abnormal peristalsis in the intestine in coeliac disease resembled that found in vitamin B complex deficient animals a crude source of the B complex of vitamins was given by mouth to certain of these patients. The response on the part of certain of the patients was dramatic—their ability to absorb fat improved rapidly, their intestinal motility and ability to absorb carbohydrate returned to normal.

The cases of primary coeliac disease whose symptoms were mild responded most markedly to this form of treatment; the more severe, longer standing cases responded little or not at all. Reasoning that because of the defect in absorption these patients were not receiving adequate amounts of vitamin B, the investigators began the use of intra muscular injections of a crude source of vitamin B complex and crude liver extracts on alternate days. In all cases a response to this form of therapy occurred; in some the response was dramatic while in others it was much slower but none the less evident. It has been found necessary to give intramuscular injections for a period of about three weeks in most cases following which the oral administration of a crude source of the B complex of vitamins in large doses will usually permit improvement to be maintained. Usually a full diet can be safely given the patient from the time of the completion of the intramuscular injections. The diet should be broadened gradually during the period when the injections are given.

It has been shown that the presence of an acute infection with fever interferes seriously with this form of treatment and causes gross set-backs in the improvement of the patients treated. Removal of all foci of infection may well become a very necessary part of treatment.

This work is still far from complete and will be until the active agent or agents in the B complex of vitamins is discovered and obtained in a highly concentrated or crystalline state. It gives promise, however, of eradicating coeliac disease from the list of nutritional disturbances of childhood.

THE INTRODUCTION OF SOLID FOODS

It is important not only for the health of the infant, but also for the establishment of good eating habits that the mother should understand in detail how to introduce solid foods into his diet.[12] Milk alone is adequate for nutrition for only the first month of life. After that time the scurvy and rickets-preventing vitamins must be added in the form of citrus or tomato juices and fish liver oils. The solid foods, which should be started at from three to five months of age, provide other nutritional essentials, particularly iron which prevents the development of nutritional anaemia. It is true that certain cereals, which are the first foods introduced, can be tolerated by an infant as young as one month of age, but we believe that this is not wise. It seems probable that the too early introduction of solid foods may result in digestive disturbances later in infancy and childhood. Therefore, it is recommended that you play safe and delay the starting of cereals until between three to five months. No harm will be done by this precaution, and much subsequent trouble may be avoided.

Cereals: When the solids are begun, the feeding interval should not be altered. On the first day the child is offered one teaspoonful of the cereal chosen, which has been mixed up with the formula, or water if the child is breast fed, until it is porridge-like in consistency. It should not be thin or gruel-like. The cereal is offered to the child before he is given his milk feedings. It is important to start with only one teaspoonful because the texture, flavour and consistency of the cereal are entirely new to the child. He cannot swallow this new food by the sucking motions which he has used up to that time. The mother has to train the child to swallow the cereal. Many infants will spit it out for some days. It may take two or more weeks of training before the infant becomes resigned to the new food. On no account should the mother sympathize with the child and stop giving the cereal just because the child obviously dislikes it. If the child absolutely refuses to take the cereal or any of the other foods that are introduced later, the mother should take the food away after an interval of twenty minutes and she should not give him his milk which he likes. In the interval until his next feeding nothing should be given but boiled water. Usually the child will eat the cereal with avidity after such an enforced fast. This same method may have to be used later on if the child refuses to feed himself when he should be learning to do so. If the child refuses the next feeding the mother should consult her physician before starving him longer.

If the child refuses to take the cereal, the mother should not become angry or disturbed, hard though this may be to avoid. On no account should the child be shouted at because at a surprisingly early age, the infant enjoys the commotion which his refusal provokes.

Once the infant has been taught to take the cereal in small quantities, it can be gradually increased according to his needs until two to four rounded tablespoons (as prepared for consumption) are given at his 10:00 a.m. and 6:00 p.m. feedings.

As to the choice of cereals. The cereals of course provide additional calories but it is best to choose one that is rich in vitamins and minerals as well. Mead's Cereal or its pre-cooked form, Pablum, meet this need admirably. They contain farina, oats and corn with the addition of the following ingredients which are rich in vitamins and minerals, namely wheat germ, dried brewer's yeast, machine dried alfalfa and edible bone meal. Extensive tests both in vivo and in vitro have shown that Pablum is better digested than ordinary cereals which have been cooked four hours. Apart from the cereal mixtures there are two other types of cereals available. The first are the highly purified white cereals such as farina, which are non-laxative but very low in vitamins and minerals. The others are the whole grain cereals such as rolled oats or rolled wheat, which though richer in the vitamins and minerals than the highly refined white cereal, are usually too laxative for young infants because of their bran content. Cereals should be cooked from one to four hours.

Bread: After the child's first tooth has erupted he should be given rusks, bread dried in the oven, or hard non-sweet biscuits to chew. These foods should not be so crisp that they break up when they are bitten.

Eggs: Egg yolk should be added at the 2:00 p.m. feeding from the age of six months on. Because of the possibility of allergic reactions the mother should give a very small amount, say one-fourth teaspoon or less, on the first day. If this causes no trouble the amount should be gradually increased until a whole egg yolk is given. The eggs may be coddled, soft-boiled or hard-boiled and mashed. At the age of one year whole egg may be given, either as such or incorporated in custards, etc.

Vegetables: The green or root vegetables may be given at the 2:00 p.m. feeding from the eighth month on. The choice should be made from the following vegetables—carrots, chard, green peas, green lima beans, fresh asparagus, string beans, young beet greens and cooked lettuce. Spinach should not be used overgenerously as it is nutritionally inferior to most of the other greens. These vegetables, although they are low in caloric value, are very valuable sources of many of the vitamins

and minerals, especially iron. They should be cooked only until tender, in the minimum of water and should be sieved until the child is two years of age. From then on, mashing is sufficient. The small amount of cooking water should be mixed with the vegetables. In cooking greens, the water left on them after washing is sufficient for cooking them. When the child reaches twelve months of age, squash, celery, beets, cauliflower and kale may be added to his diet list. The child should be fed the vegetables singly so that he becomes accustomed to their individual tastes. They too should be started in small amounts and then gradually increased. It is especially important to train children to eat a good variety of vegetables. The average child likes them the least of all his foods. Baked potato is also valuable, but must not take the place of the other vegetables. Canned sieved vegetables are equal if not superior to the home-cooked ones.

Fruits: Applesauce or prune or apricot pulp may be added to the supper menu from the tenth month on. Well ripened banana, as shown by the presence of brown patches on the skin may be served raw if it is thoroughly mashed with a fork. After the first year baked apples, stewed pears and peaches and scraped raw apple may be included in the diet.

Meat and fish: Scraped beef should be added in the latter part of the first year. (This is prepared by scraping lean round steak across the grain with a sharp spoon or a dull knife.) The meat so obtained is then made into a small patty, which is lightly cooked on both sides under a broiler or in the upper part of a double boiler over hot water. Later broiled, stewed or roasted chicken or liver may be added. These foods should be cut up fine before being fed. Boiled, steamed or baked non-oily fish such as cod, haddock or the fresh water varieties may be given once or twice a week. The fish of course is carefully boned and broken up into small pieces before it is given to the infant.

Prohibited Foods: The following foods should not be given to young children: Greasy or highly seasoned foods; fried foods with the exception of crisp bacon; veal, pork, corn or cucumbers; fresh bread or breadstuffs; pastry, cake or rich cookies; ice cream. Coffee or tea should never be used, partly because of the caffeine that they contain, but also because they replace milk which is particularly valuable to the child. Nuts, because of their high fat content, are hard to digest and there is always the danger of aspiration. They too should be forbidden. Candies as they are a concentrated source of calories and also because they have a high satiety value, should not be allowed. They take away the child's appetite for his meals, which are rich in vitamins and mineral-containing foods. The amount of sugar commonly used in cooking is permissable, but sugar should not be added to cereals or fresh fruits. If the child is not given overly sweet foods, he will not demand them.

ANOREXIA

One should not end a discussion of this nature on the feeding of the older child without referring to the time-worn condition of anorexia which is unfortunately still with us. I would simply like to reiterate the remarks made by Brennemann of Chicago[13] some years ago. In 1921 he wrote "The child that will not eat represents probably ten to twenty per cent of children in private practice between the second and fifth years inclusive, with a lesser incidence in the first year." Some years later he said: "Now anorexia is not an occasional occurrence, an isolated phenomenon in childhood; it is the rule in that very stratum of society in which mothers are lying awake planning a gospel diet and the most effective way of administering it. The lowest estimate of its incidence in private practice, that I know of, is fifty per cent. A scientific survey in a university neighborhood and a paediatrician with a large office practice have placed it at eighty and eighty-five respectively. A prominent paediatrician recent said that he had 'paid for his house with anorexia.'

"Every paediatrician knows these things to be true, and he also knows that they have nothing to do with hypochlorhydria, anaemia, tonsils, vitamin B or body build. The purely psychologic cause becomes evident when it is found that such anorexia occurs only in the home, and is cured rapidly and almost unfailingly when the child is sent to a ward in a hospital without any change in the food.

"The nutritional results of rebellion against forced feeding are still obvious on all sides, although there are encouraging signs of improvement. The healthy child who will not eat is, ipso facto, a behaviour problem, numerically the greatest of all, and as a factor in the pathogenesis of further disturbances in behaviour, probably second to none. One cannot fruitlessly nag, tease, cajole, wheedle, spoof, beg, scold, bribe, threaten, punish, force, weep, or pretend to weep, or indulge in all kinds of monkey-shines, from playing the victrola, beating a drum, turning on the radio, singing a song, telling a story or showing a picture book to dancing a jig in order to get a child to eat—all stereotyped occurrances, without admitting failure and without losing nearly all of that wholesome spontaneous discipline that alone leads to a normal behaviour reaction." As Brennemann[14] says:

"If propaganda so simple, concrete and tangibly

physical can produce such a volume of abnormal behaviour, what may one expect from a lay interpretation of the profusion and confusion of psychiatric literature, practice and exposition that is being poured out in ever increasing amounts? Mothers are unquestionably becoming psychiatrically minded. If there were only one wholly sane, simple and satisfying book on the subject, it would be a Godsend. But when one new book or two or three appear each year, to say nothing of special magazines, when every newspaper and magazine has a columnist or two culling from one authority and then from another; when those parents who elect themselves to educate other parents meet in annual convention with a galaxy of speakers that reminds one of the annual display of grand opera stars; when I.Q.'s and B.M.R.'s are being swapped at afternoon teas and bridge parties, and sex is discussed as freely as tonsillitis or the "flu"; when the radio slips in a ten minute talk on "Mental Health and How to Maintain It" hemmed in on both sides by jazz; when in other words, not simple, easily graspable, objective things such as weight and height are being dealt with, but intangible, confusing and immeasurable psychic phenomena and propaganda, what will be the result on the lay mind that cannot either escape from it or incorporate it all usefully as applied to the individual child?"

I am firmly convinced that in the future there will have to be a greater exhibition on the part of mothers, of the most uncommon thing in the world, namely, common sense.

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During the first two years of the war (England), deaths from tuberculosis increased in Glasgow about forty-one per cent. The 1941 record shows no improvement. Overwork, strain, and ill-spent leisure are thought to be responsible for the rise.—S. Laidlaw, M.D., and D. MacFarlane, M.D., British Medical Journal.

RETROBULBAR NEURITIS*

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There is probably no problem confronting the occulist upon which there are so many strongly advocated opinions, each definitely at variance with the other, as that of retrobulbar neuritis. On the one hand, an entirely artificial classification of toxic amblyopia has crept into the literature, while on the other, the problem has been reduced, in at least the majority of the cases, to the assumption that retrobulbar neuritis and multiple sclerosis are synonymous. And since we know nothing of the etiology or much that is definite by way of therapy for multiple sclerosis, then it must follow that we know nothing of the etiology or treatment of retrobulbar neuritis. One is not easily convinced that this is the case.

It must be remembered that except for field changes we have nothing objective to assist in diagnosis. The very occasional fundus changes described are probably the exception rather than the rule. It is noteworthy that Paton[1] and Klar[2] each thought edema of the disc sufficiently significant to report it. If then the one important finding is the change in fields, it would seem logical to use perimetry as a basis for classification of the retrobulbar neuritides. The question of chronicity does not impress one as of nearly the importance some writers give it.

In retrobulbar neuritis, complete blindness may develop slowly or quite rapidly with a dilated or fixed pupil as in total transverse neuritis, or there may be a very limited interruption of conduction involving only the macular fibers, as in axial retrobulbar neuritis. These entities, so far apart clinically, are quite as widely separated in etiology, prognosis, and therapy. Whether one or both eyes are involved does not seem of great importance. Surely all of us have seen typical "tobacco amblyopias" involving one eye a considerable time before the other. One case, a man of thirty-eight, suffered recurrent attacks of retrobulbar neuritis of the right eye every time the left antrum became infected. He was relieved promptly each time the antrum cleared under irrigation. Why one nerve should be more susceptible to a given toxin than its fellow is not easy to understand. But that definite toxins do have a greater affinity for some nerve or nerves than for others is not a situation peculiar to retrobulbar neuritis. Consider the ulnar nerve in plumbism.

Retrobulbar neuritides seem to fall logically into

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three great groups. The first of these is that in which the retrobulbar neuritis is just another symptom of a complex neuropathological entity. The field changes are not too consistent, but the related symptoms lead us to natural conclusions of diagnosis and prognosis. And for each member of the group the treatment of the retrobulbar neuritis is that of the disease. True, in some instances, the best we can do at present is to give the disease a name. But then there are some other branches of medicine, as well as ophthalmology, that occasionally run into similar difficulties.

Leber's Disease which occurs particularly in males with a hereditary tendency, at about the twentieth year of life, with a rapid loss of visual acuity, one eye being involved usually a few weeks before the other, belongs in this first group. There are usually slight degrees of papillitis followed later by secondary atrophy. Some improvement in vision may occur but the disease lacks the general propensity of retrobulbar neuritis to spontaneous recovery.

The typical scotoma is a central one often breaking through to the periphery, most often up and in. According to Groenouw[3] this type of central scotoma occurs in seventy-five per cent of the cases, while Bell[4] places the incidence at eighty-eight per cent. In about one-third of the cases there is a peripheral contraction. Ronne[5] felt that the central scotoma with its sector break-through indicated a subchiasmal defect in the nerve trunk. According to Hancock,[6] when recovery does occur, it may first be seen centrally, so that a ring shaped scotoma may develop.

The pathology is based apparently upon a single case, that of Rebsteiner.[7] This case showed an overgrowth of glial cells with an atrophy of the nerve in the papillo-macular bundle. Intraoccularly there was nerve fiber layer and ganglion cell atrophy.

The etiology is unknown. Various theories such as its origin from some mysterious toxin, temporary pituitary disease, abiotrophy, have been advanced. None has been universally accepted, and none can be conclusively refuted. But it will be noticed that in this condition there are several characteristics that lead one to feel that he is dealing with a specific neurological entity; that the retrobulbar neuritis is part and parcel of a specific nervous disease. The fundus changes, the hereditary tendency, the age incidence, and the exceptionally associated evidence of organic nervous disease (such as epilepsy, tremors, insanity, et cetera) all lead one to feel that Leber's disease properly belongs in our first group of retrobulbar neuritides.

Specific infections: Of these tuberculosis, either by direct extension from neighboring structures or by metastasis, rarely may be a cause. Syphilis more commonly causes nerve damage. The pathology and treatment is that of the specific infection. In the case of syphilis, suffice it to say that the field and occular manifestations are about as varied as the manifestations of lues in the rest of the body. The diagnostic methods available to us are too well known to bear reutterance.

Herpes zoster ophthalmicus is rarely complicated by a type of retrobulbar neuritis. This is associated with a total loss of vision and optic atrophy.

Plumbism, with its peripheral neuritis, lead line in the gums, wrist drop, headache, and colic, may produce eye symptoms. Lead may cause an homonymous hemianopsia which one would be inclined to consider as part of a saturnine encephalopathy, rather than a true retrobulbar neuritis. Retinal hemorrhages, retinitis, and vascular changes occur. These may take the forms of spasms, arteritis, or periarteritis. Some of these are undoubtedly secondary to a lead induced nephritis. But a true retrobulbar neuritis does occur marked by bilateral pericentral scotomata with no peripheral field defects.

Pathologically, the nerve lesion has been shown to be an inflammatory one in the sheath, with thickening of the sheath and vascular changes. In the case of lead, both primary neuronic toxin and secondary vascular mischief play their part in the ocular damage.

The treatment is that of lead poisoning.

Iodoform and iodine may produce field defects, usually pericentral scotomata, which tend toward favorable recovery when the drug is removed. Peripheral constriction has been added especially in cases where Pregle's Solution was used intravenously for septic conditions.

The fundus may show narrowing of the vessels and brownish discoloration.

Other specific toxins that may produce retrobulbar neuritis as part of a general picture of toxic damage have been mentioned in the literature. Of these thallium, used in some facial creams, has produced bilateral central scotomata and cataracts. Inorganic arsenic, thyroid, apiol, and even sulfanilamide (Bucy,[8] 1937) have produced neuritis.

Organic nervous disorders associated with demyelination constitute a group of conditions that may have retrobulbar neuritis associated as one of the symptoms.

Schilder's[9] Disease, a disease of early childhood, in which there is massive subcortical demyelination of the cerebrum and cerebellum followed by gliosis, may have blindness added to the deafness, spastic paralysis, apathy, and eventually death which mark its course.

Devic's[10] Neuro-Myelitis, another disease in which demyelination is a prominent factor, may have neuritis of the optic nerve associated. Here we find

changes in the lower cervical and upper dorsal cord. And though the optic neuritis may precede the myelitis, yet the paresis, loss of reflexes, and trophic disturbances are quite as striking.

Disseminated Sclerosis and Acute Disseminated Encephalo-Myelitis, diseases again of demyelination, are likewise most definitely neurological entities of which the retrobulbar neuritis is merely a part. Fortunately in the latter disease papillitis and some hemianopic defect is common, so that we have at least a clue to diagnosis.

In the case of multiple sclerosis we are less fortunate. Optic neuritis is said to be frequently the first symptom of the disease with other symptoms appearing anywhere from six to twenty or more years later. For this reason one can not lightly dismiss the possibility of multiple sclerosis, especially when a unilateral retrobulbar neuritis appears. And this is usually of the type to be discussed presently as the axial retrobulbar type. But the age incidence (usually under forty), unilateral involvement, acute onset, all point to multiple sclerosis as a possibility. And in such cases spinal fluid examination and most careful neurological examination are urgently indicated.

There is too much reliable evidence to show multiple sclerosis as a cause of retrobulbar neuritis without other tangible findings at the time, to lightly dismiss this disease. Uthoff[11] and later Gunn[12] placed the disease as responsible for one-half of the cases observed by them. Scheerer[13] and Benedict[14] felt that their records substantiated this incidence. But one finds it more difficult to follow the extreme view taken by Adie[15] that "with rare exceptions the only cause" for acute retrobulbar neuritis is disseminated sclerosis. Walter Lillie[16] seems to be more and more inclined toward this extreme position, although admitting other causes as a possibility. Lillie recommends foreign protein therapy and pilocarpine sweats, but feels that "in most cases vision returns to normal with out treatment."

Undoubtedly, retrobulbar neuritis is commonly a symptom of multiple sclerosis just as it is of the other conditions above mentioned. Likewise, it is ofen a first and only symptom. But the fact that a person with retrobulbar neuritis, with no clinical or serological evidence of that neurological happy hunting ground, multiple sclerosis, may later, in some instances years later, develop multiple sclerosis, by no means establishes the antecedent retrobulbar neuritis as part and parcel of multiple sclerosis. No more so than a pregnancy in an individual with multiple sclerosis years later, can be considered as part of the disease. At least from the practical point of view it would seem most injudicious to treat as multiple sclerosis every case of retrobulbar neuritis without any other evidence of that disease. And indeed until we know at least something concrete about the etiology of multiple sclerosis, it would seem sound to make exhaustive studies for possible sources of the neuritis even in the presence of such inconclusive phenomena as lost abdominal reflexes. It has been my misfortune to have seen several patients who were needlessly deprived of useful vision for as long as three years because of the vicious tendency of calling all cases of retrobulbar neuritis without a neon arrow pointing to the etiology, multiple sclerosis.

The whole situation is especially disturbing since there is nothing pathognomonic in the clinical laboratory findings of multiple sclerosis. And the manifestations of the disease are, to say the least, not stereotyped. One sometimes wonders, if all cases of clinically diagnosed multiple sclerosis could be autopsied, how many might fail to show the typical plaques, the only thing pathognomonic of the disease.

A dence and unilateral central scotoma varying in shape and size with occasionally hemianopic or quadrant scotomata, and in general a predilection for the papillomacular bundle, seems to be the commonly accepted field defect.

It is not my intention to add to the confusion already existent concerning sinusitis as a cause of retrobulbar neuritis. Surely every occulist has seen cases clear, as if by magic, when infected sinuses were opened and drained. In one instance of an acute bilateral retrobulbar neuritis, with an associated purulent pansinusitis, it was possible for us to restore vision almost at will within a few hours by packing the middle fossae and sphenopalatine recesses with pledgets soaked in adrenaline. Recovery would last about twelve hours. There would then be a relapse followed by another recovery after the same treatment. This sequence continued until drainage was established from the ethmoid cells when the sight remained good. The instance of the patient relieved by irrigating his contralateral antrum has already been mentioned. Every occulist can recall a considerable number of similar cases. Yet one feels that the sinusitis may merely be a toxic process, even the hyperplastic variety, and not necessarily any complicated mechanism as erosion of bone protecting the nerve which Van der Hoeve,[17] Redslob,[18] Worms,[19] and others have demonstrated to occur at times. Nor is the process necessarily pressure from a distended sphenoid with the subsequent edematous strangulation at the foramen that Crane[20] and Letchworth[21] have been able to demonstrate.

Any brief for sinus disease per se as a cause of retrobulbar neuritis meets two obvious objections: (1) Rarely is retrobulbar neuritis found in sinus disease, which is extremely prevalent. (2) In cases of

retrobulbar neuritis, sinus disease, even allowing much conjecture as to condensing osteitis and x-ray evidence of bone absorption and softening, is not common enough to be convincing.

Sinusitis may be a cause, and when it coexists should be treated. But its causal effect, in the majority of cases, is as a focus of infection just as any other focus may be a cause. It is my belief that most of these are the effect of an infectious focus on a nerve the resistance of which is lowered often by a vitamin B_1 deficiency.

Van der Hoeve's[22] sign of symmetrical enlargement of the blind spot with retention for a time of central vision, is not conclusive as a diagnostic criterion, but it may be helpful at times in sinus infections.

The second group of cases is that in which peripheral field contraction is the outstanding finding.

Ergot, a drug acting directly on smooth muscle, may be the cause of a transient amblyopia, but atrophy of the nerve does not occur. The other symptoms of ergot poisoning, such as pains in the limbs, paraesthesias, gangrene, and uterine contractions, may be associated.

In this condition the principal field defect is a peripheral contraction to which a central scotoma is only sometimes added.

The ophthalmoscope shows retinal vasoconstriction and edema. Experimentally Peters[23] found the vessel walls and ganglion cells of the retina degenerated.

The analin group, which includes coal tar hair dyes (Keschener,[24] Rosen), trinitrotoluol, and amidobenzol, may produce, as well as occasional hemorrhages and a violet discoloration of the retina, a retrobulbar neuritis with peripheral field constriction to which may be added a central scotoma.

The ophthalmoscope reveals constricted arteries, tortuous veins, a hazy disc, occasionally hemorrhages, and sometimes a violet discoloration of the retina.

These chemicals which may enter the body through the skin or by inhalation of fumes or dust seem to be eliminated when workers are removed from contact, and all the symptoms disappear. Consequently there is little that has been done by way of pathological study.

Felix mas (aspidium) which has been used as an anthelmintic, is similar to, but much more severe than quinine in its occular manifestations. Symptoms usually come one within twelve days of administration, and the amaurosis may be complete and permanent or temporary. There is a constriction of the peripheral field. An interesting feature in forty-seven cases reported by Stulp[25] was that seventeen were unilateral.

The fundus usually shows constriction of the retinal vessels and edema. Optic atrophy may follow.

Experimentally, degeneration and chromatolysis of the ganglion cells and inner nuclear layer cells, as well as optic nerve degenerative changes have been produced.

Quinine and its derivatives (quinidine, chinolin, optochin, eucuprin) produce visual symptoms much more frequently than the general practitioner realizes. And it may do this even in relatively small doses. Duggan and Nanavati[26] report a case after one gram, Elliot[27] after 0.13 grams. Schwabe[28] after 1.25 grams. There may follow a complete amaurosis with a permanent atrophy, but much more commonly there is a constriction of the peripheral fields, constriction of the retinal vessels, and a limited optic atrophy. While the tendency is toward recovery, there is usually some permanent visual defect. Tinnitus and deafness are apt to precede the visual symptoms.

Not only is there constriction of the retinal vessels in this disease, but there may be, according to Smith,[29] edema added so that the picture of obstruction of the central artery (cherry red spot and all) may be produced. The field constriction in these cases is greatest for blue.

A very considerable amount of experimental work has revealed chromatolysis and degeneration of the ganglion cells, some degeneration of the nerve fibers, and later thickening of the walls with still later obliteration and thrombosis of the lumen of the blood vessels.

Quinine probably acts directly upon the nerve elements, but the vasoconstriction is a matter of the greatest importance. Giannini[30] demonstrated this beautifully by showing that in dogs (in whom constricted arteries, pale discs, blindness, and ganglion cell degeneration is easily produced by quinine) when acetyl choline was combined with the quinine, neither clinical nor pathological ill effects were observed to follow.

The salicylate group (salicylates, antipyrine, antifebrin, et cetera) produces effects very similar to quinine-tinnitus, deafness, dilated pupils, constriction of the arteries. However, in this instance recovery is usually rapid and complete.

Organic arsenic compounds, especially the pentavalent compounds, may be very toxic. Few occulists have not at one time or another seen a case in which the fields were rapidly constricted after tryparsamide therapy. Yet this is one of the least toxic of these compounds, which apparently are most toxic when an amino or substitute amino group occupies the para-position (Young and Lovenhart[31]). Here again we find a constriction of the field and of the retinal vessels. The pathology is that of degeneration in the retina and nerve.

Because arsenicals are so widely used perhaps a

word about them would not be amiss. While Tissot-Daquette[32] reported a sudden, complete, and hopeless amaurosis, the usual picture is a rather rapid concentric contraction of the fields occuring somewhere along the course of treatment. This usually happens weeks or months after treatment has been started. The most critical time is about the tenth injection, and the visual symptoms usually precede the headache, ataxia, dizziness, labyrinthine, and other symptoms of intoxication. One must be especially cautious in treating persons over forty and those with any degree of kidney, liver, or arterial disease. And at all times a most careful check on the peripheral fields must be maintained. It is our custom at the Smith Clinic to have the fields checked before starting treatment and after the first, fifth, eighth, tenth, thirteenth, and then every five more treatments. It is amazing to see how rapidly and suddenly the fields can start contracting. There is often some central visual depression associated with the field contractions; therefore, the visual acuity should be recorded before each injection. It takes practically no effort to record visual acuity, and peripheral fields are not too laborious a task. Certainly not when one considers the grief the patient may be spared. It is interesting that the pupillary reaction may be retained even in severe cases and that continued deterioration of the vision may occur over a period of a couple of years ending in atrophy and blindness (Veil[33]). Veil has reported improvement after the immediate injection of acetylcholine, and certainly this should be tried. I have seen very definite improvement both in vision and in fields after malaria therapy. In one man the fields, which had dropped about fifteen per cent, and whose vision had dropped to 20/40 in either eye with correction, were returned to normal and his vision improved to 20/15 in either eye after malarial therapy. Another patient, a woman of thirty-eight years, whose fields dropped rapidly after the tenth injection to within twenty degrees of the point of fixation, showed a most remarkable constriction of the retinal vessels which persisted for about ten days even under a variety of vasodilators given by mouth, vein, and as hot baths. In these cases the tryparsamide should be stopped at once and acetyl-choline given immediately. Then vasodilation should be maintained by the use of sodium nitrite and hot baths. If the fields continue to constrict one should consider the advisability of malaria therapy. It is important not to lose time in these patients. Field defects will often continue to drop at an alarming rate unless the most energetic treatment is instituted. And if later, one starts arsenic therapy again, it would seem judicious to use the utmost caution checking fields and acuity incessantly. Unfortunately, tryparsamide is of the greatest service in luetic conditions in which the patient's judgment is notoriously poor, such as paresis. It is, therefore, often difficult to convince such patients of the necessity of having their fields repeatedly checked. The internist and the neurologist are easier to convince, since they can usually remember some concrete example of why fields should be checked.

There is an arsenic kerato-conjunctivitis, sometimes necrotic, associated with iritis, retinal hemorrhage, and even papillitis that has been reported by numerous writers.

The concentric field contraction and the prominent part played by vasoconstriction in this entire group of cases must be obvious. The logical treatment would seem, therefore, to be the vasodilators. Of these acetyl choline and sodium nitrite are very satisfactory, but amyl nitrite and other choline derivatives may prove valuable. Lately nicotinic acid intravenously has given encouraging results. Paracentsis is a procedure that might be tried in extreme cases. We have used it occasionally with doubtful benefit. Lumbar puncture has been used in quinine amblyopia with some success by Alt[34] and might be worth considering. Improvement has been noticed after fever therapy, and a hot tub is something that is usually available. This, however, is not nearly as beneficial as malaria treatment. But a considerable amount of benefit can be accomplished by the hot tub provided the temperature is raised high enough and kept up long enough. Probably each of these procedures acts by virtue of its power to produce vasodilation.

Indeed Duggan[35] feels that every acute retrobulbar neuritis is due to tissue anoxemia and the result of arteriolar spasm and increased capillary dilation and permeability. Hence, the treatment is always vasodilation. Moon[36] states that "many phenomena called toxic are essentially anoxic." Duggan recommends the use of intravenous sodium nitrite thus getting a high blood concentration for a short time, and using a drug whose vasodilator action is relatively prolonged. He feels that vasodilation eliminates the tissue anoxia by bringing oxygen rich blood to the tissues.

The last of our three groups is made up of those cases in which a centrocaecal scotoma is the outstanding change. This group of cases stands in sharp distinction to those exhibiting peripheral field contraction, and has been attributed to numerous toxic substances; tobacco, ethyl alcohol, carbon disulphide, inorganic arsenic, optochin, et cetera. These cases may also arise in the absence of any discoverable toxic substance, endogenous or exogenous. If one checks the central fields in all cases where careful refraction fails to give satisfactory results, he becomes amazed at how often a mild so called toxic amblyopia

may exist. Some of the cases to follow will illustrate this point.

Peripheral neuritis may coexist.

Let us consider some of the more common toxic agents briefly.

Tobacco is said to give centrocaecal scotomata for red and green before form with the peripheral field intact. The older conception was that most heavy smokers are heavy drinkers and therefore alcohol also plays a part. There are many startling discrepencies of either tobacco or alcohol as a cause, per se, of toxic amblyopia.

1. The amount of tobacco necessary to produce toxic symptoms varies tremendously. In one of our patients the amount was so small that not only was he a total abstainer but did not even like persons who did indulge. This variance in the amount necessary to produce toxic symptoms has been explained as "varying susceptilility," a phrase meaning nothing.

2. Most authors agree that these patients are generally below par at the time they first show symptoms.

3. Most of these individuals smoke or drink for years and are symptom free until such time as their general health is poor.

4. Even after complete abstinence there may be a considerable time before improvement starts.

5. Once cured, recurrences are uncommon, even when the patient goes back to his smoking and drinking. Gunn,[37] Usher and Elderton[38] thought drinking might actually be beneficial.

The pathology is a degenerative change in the fibers involved and a degeneration in the ganglion cells.

Ethyl alcohol: These cases are said to occur in persons with long established drinking habits. Yet de Schweinitz[39] kept a monkey continuously and gloriously drunk for six months with no ophthalmoscopic or pathological eye changes. This substance is about identical with tobacco in its eye effects. It has the same objections as a cause per se.

Methyl alcohol: This is similar except that the onset is sudden, blindness is often complete, and recovery may be very limited. In those cases that do show retrogression, the same type of scotoma is seen. Of course there may be the general symptoms of stupor, prostration, abdominal pain, convulsions, and death with methyl alcohol poisoning.

In cases of slow absorption, as by inhalation, along with the headache, obscure nervous and gastrointestinal symptoms, there may be a more gradual deterioration of vision with field changes similar to those of tobacco or ethyl alcohol.

Here the pathology is a widespread degeneration of the ganglion cells and nerve fibers even as far as the geniculate bodies.

While wood alcohol is quite like ethyl alcohol, it differs in that it is poorly eliminated and thus has a much more cumulative effect. This effect may be due to the formation of formic acid in the blood. It has been demonstrated that the oxidative processes of the retina are greatly reduced. Some observers believe that light increases the damage to the retina in these cases.

Carbon disulphide: This substance is used largely in the rubber industry. It causes a type of retrobulbar neuritis quite similar to that of alcohol. Hearing is often affected. Headache is common. It takes months of absorption to produce symptoms, and these are usually preceded by a period of euphoria. If the patient is removed early enough from contact, vision usually returns fairly promptly. If contact is continued or is renewed, partial atrophy is likely.

It is in this group of cases that thiamine chloride seems to play a really remarkable role. One gains the impression that two conditions are necessary for this type of retrobulbar neuritis to develop. First, there must be a toxic substance of the type that has a predilection for the tapedomacular bundle, and second, there must be a sufficiently susceptible nerve for the substance to act upon. Apparently thiamine chloride can increase tremendously the power of resistance of these cases. Conversely it has the beneficial effect leading to recovery when it is used as a therapeutic agent. There has been a great deal in the literature of late months on the value of this vitamine in retrobulbar neuritis. I shall not attempt to quote from the many authors that have broached the subject. But it appears that this particular group of cases is the one most benefited. One feels that some of the adverse criticisms of B_1 as a therapeutic agent have arisen from the use of it in cases in which vasodilators were the proper drugs. Of course one should hunt for and remove any toxic substance or focus that might be discoverable. However, in many of these cases no such substance is traceable.

Experimental evidence has been advanced to show that in B_1 avitaminosis there is a reduction in oxygen consumption. There is now common acceptance of the idea that a large fat intake spares B_1, and that a large carbohydrate intake wastes it. Therefore, the larger the proportion of caloric intake is fat, the smaller the amount of B_1 that is required by the body. B_1 is needed for the oxidation of carbohydrates, but not for the oxidation of fats. This assumes special significance if we accept the ability of brain tissue especially cerebral cortex, to oxidize only carbohydrates (Quastel,[40] J. H.). Briem[41] found that thiamine increases the action of acetyl choline. Excessive doses of the substance merely lead to its distruction in the body. There have been some untoward effects of excessive doses demonstrated in animals

experimentally. Probably no similar conditions could arise in man.

Since there has been considerable evidence to demonstrate that lack of B_1 may be responsible for optic neuritis, (Cronin,[42] 1933: Carroll,[43] 1936, and a host of others), it certainly is worth a trial.

In this particular group of cases it is indispensable in our armamentarium of therapy. At least in my cases the results have persuaded me. To demonstrate let us briefly review a few instances from many similar cases.

CASE REPORTS

Case No. 1 Male. Age fifty-one. Railroad section foreman. A heavy smoker and a total abstainer from alcohol. Complains that his left eye failed him three years ago. Some months after this his right eye failed until he was obliged to quite his job. He says that his general health was below par, but he had not lost any great amount of weight lately or in the last three years.

Examination revealed normal fundi and vision of 15/400 in the right and 20/400 in the left eye with no improvement by any correction or with the pin point. Careful general examination failed to reveal any focus of infection. Blood chemistry and serology were found to be normal.

Fields showed the typical scotomata for red and green larger than for form in the centrocaecal area.

He was told to quit smoking, and was given a diet rich in B_1, thiamine by mouth, and by vein. He was hesitant about quitting his smoking because he had tried that for several months with no result. However, he soon showed improvement. Within two weeks the vision in his right eye was 20/300 and in the left 20/200. The centrocaecal scotomata gradually decreased in size until six months later his blind spots were perfectly normal for form and color, and his vision in either eye, with a small correction, was 20/15.

This man had been told that there was nothing to do for him because the condition that he suffered from gets better by itself. This advise cost him nearly three years of useful work. He is now back at work, looks fine, and has gained considerably in weight. His vision which was defective for red and green for a while is now normal. He says he "never felt better in his life." He has been checked again recently and is still in excellent condition.

Case No. 2 Male. Age seventy-five. White. Farmer. Complained that he has had his glasses changed frequently but none of them seemed to do any good. His vision had been especially bad for one year.

Examination revealed vision of 20/60 in either eye, unimprovable. Otherwise his eyes were normal except for considerable sclerosis of the fundus vessels and a few drussen. Fields showed the typical scotomata for red and green greater than for form in the centrocaecal area. General examination revealed no foci of infection and his serology and blood chemistry were normal.

He was given a diet rich in B_1, and this vitamin was given to him by mouth and by vein. In two and a half months his vision with correction was 20/20 in either eye. The patient volunteered the information that his hearing had improved too. His blind spots were normal. He looked and felt much improved.

Case No. 3 Male. White. Age twenty-six. Itinerant worker.

Had been drinking for two days. Suddenly went blind a few hours before first seen. His vision was reduced to shadows and he reeked of poor liquor.

This patient was hospitalized and treated as though he had taken wood alcohol which he suspected he had done. He was lavaged. He was sweated with blankets and light cradle, given epsom salts, and intravenously B_1 at two hourly intervals.

The next morning he was able to distinguish faces and that night to read the paper. When discharged, two days after admission, his vision was 20/20 in either eye. His peripheral fields, like each of the above cases was normal. He had a slight centrocaecal defect for red in either eye. He was asked to return later for follow up which he failed to do.

Case No. 4 Male. White. Age twenty-three. Filling station attendant. Stated that his vision had been poor for eight years. He had had his glasses changed repeatedly but none of them seemed to help.

Examination revealed only a small central scotoma for red and green but not for form, and a bulging of the blind spot toward the point of fixation for a few degrees for form.

He was treated like the others with the result that his vision, which was 20/40 in the right eye and 20/70 in the left, in the course of three months improved to 20/20 in each eye.

The patient was then refracted and found to take no correction.

These are merely a few of numerous similar cases. Many of them showed some focus of infection which was removed where this was feasable. Others showed little or nothing abnormal. Probably there is no individual in whom we could not find some focus of infection if we looked long and hard enough. However, it does not seem reasonable to remove gall bladders and sundry and divers parts on the slightest provocation. But when such foci are relatively easily removable, they should be removed. The patient should be put on a high B_1 intake. The tremendous doses we have at times used are open to the criticism that we are wasting the vitamin. On the other hand we are sure that the patient is getting an ample supply. One thing that should always be done is to carefully check the blood sugar and if this is high, have it regulated. We have not routinely put our patients on a carbohydrate poor diet, but have cautioned them to limit their sweets. In this way one makes sure that as much as possible of the B_1 is available for the nerve tissue.

SUMMARY AND CONCLUSIONS

Retrobulbar neuritides fall logically into three groups.

First; those that are part and parcel of some systemic disease of which the retrobulbar neuritis is merely a symptom. The diagnosis, prognosis, and treatment is that of the disease.

Second; those cases in which peripheral contraction of the fields is the outstanding finding. These usually show some constriction of the vessels of the fundus. Much that is called toxemia in these in-

stances is anoxemia of the retina. These are benefited most by the use of vasodilators.

Third; are those cases in which centrocaecal scotomata are the outstanding findings. Thiamine chloride should be given and proper precautions should be taken to see that as much of the vitamin as possible is made available for the nervous tissue.

Since toxicity may play a part in every type of retrobulbar neuritis, every effort should be made to discover and remove any toxic focus or contact.

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What is the age at which a person may expect, according to averages, to live just as long again? At age thirty-five the expectation of life is itself thirty-five years, so that a white person at age thirty-five may expect, according to averages, to live to age seventy, which happens to be the oft-quoted biblical "three score years and ten." No doubt it is this figure that Dante had in mind in the opening lines of his Divine Comedy, where he refers to himself as being halfway on the road of life. Writing this, supposedly in 1300, he was then thirty-five years old.

This halfway station, when a man's expectation of life is equal to his age, is somewhat variable according to changes in mortality, but much less so than the average length of life. According to mortality in the United States, the former figure has varied only from about thirty-three to the present thirty-five—that is, by two years—in the last four decades, during which the average length of life has increased by almost fifteen years.—Statistical Bulletin, Metropolitan Life Insurance Company.

PEPTIC ULCER

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I have felt for years that our treatment of peptic ulcer is unsatisfactory. The morbidity of the disease is high; recurrence is frequent; the treatment is lackadaisical, inadequate, and in that it is entirely symptomatic and palliative, it is unscientific.

Originally in my treatment of the disease I followed the standard text book pattern, known as Sippy treatment. I was a faithful disciple. I put my patient to bed, fed him milk and cream alternate hours with Sippy powders No. 1 or No. 2 as indicated. But I found that after two or three weeks my patients were worse, some of them pitifully worse, depressed mentally and physically. I tried the recommended variations of the treatment but finally came to the conclusion that the entire prevailing conception of the disease was wrong, that there must be a re-examination of the disease both as to its etiology and treatment.

Etiologically, one can discuss ulcer from two different origins: (1) that it is strictly a local lesion and (2) that it is a manifestation of a constitutional disease of which the ulcer and hyperacidity are secondary and relatively unimportant symptoms. Much experimental and clinical evidence supports the theory of the central causation of the disease; chiefly the frequency of ulcers following cerebral lesions and vagal and sympathetic disturbances. To me the clinical evidence is convincing that not only are duodenal and gastric ulcers local manifestations of central nervous disease but I am also including in the syndrome a number of gastro-intestinal symptoms that have been masking under other aliases, such as colitis, nervous colitis, spastic colitis, post cholecystectomy distress and that other unnamed illness that has for its habitat the left side of the abdomen. The elder practitioners called all this "nervous dyspepsia." This may be poison to the modern laboratory diagnostitian, but I refer it to you again as probably as satisfactory a name as we have for the disease.

I feel that this entire syndrome, including the ulcer and the hyperacidity is a disease of stress and maladjustment, a tension disease. I make one exception to which I will refer later.

Among railroaders, with whom I am chiefly concerned, the high incidence of the disease is easily explained. During the last ten years, with the depression and the consequent reorganization of the roads, the lots of the men have been far from easy. Reduction of forces, overwork, economies have

caused stress and strains that have sifted down through the ranks even to the Mexican on the section. Especially trying have been the lots of the minor executives, the head clerks, the chief clerks, the straw bosses, who have had to carry heavy loads under that intolerable condition, responsibility without authority. There are maladjustments on the jobs; square pegs in round holes, men doing desk work who should be switching, men doing supervisory work for which they are tempermentally unfitted and visa versa, men doing routine work who are potential executives. Among my cases in this group was one man in charge of a roomful of typists. Two or three of these females knew exactly how to get this poor fellow's goat. To cure his ulcer he had to take a demotion and go back to routine work.

The average routine in handling these cases is about as follows: the patient tells the doctor he has "stomach trouble", in fact he may be a repeater and tell the doctor he has an ulcer. Gas, belching, sour stomach, relieved by food and soda. Pain, food, comfort. Pain, food, comfort. That is the sequencial triad. A gastro intestinal x-ray is ordered. If the roentgenologist reports a filling defect in the stomach or duodenum the doctor says, "Yes, you have an ulcer. I will put you on Sippy treatment. Here is your diet and a prescription for Sippy powders."

If no filling defect is reported back the doctor is stumped but the patient probably gets the same dietary advice. A negative x-ray report is of little significance. Because the roentgenologist uncovers no filling defect in the duodenum or stomach is not proof that one is not present at the time of the examination; neither is it proof that an ulcer was not present last week or will not be present next week. Ulcers are like pimples; they come and go.

One word before I go on about diets and alkalies. Of two things I am firmly convinced; first, the ordinary restricted diet usually prescribed for these patients is wrong and, second, that alkalies are unnecessary and contraindicated. Consider for a minute the usual diet ordered for these ulcer patients. I mention the milk and cream regime only to condemn it. You will remember it was taught not so long ago that milk was a proper and sufficient food for the first two years of an infant's life. Now ask any pediatritian what he thinks about this. Not that milk is not helpful to some of these patients in a reasonable subsidiary role. Meat is either forbidden or restricted to white meat of chicken or baked fish. Proteins are definitely indicated in the treatment of ulcer. A slice of roast beef or broiled steak will take care of the hyperacidity better than any alkali. Of course these patients cannot get away with corn on the cob or greasy pork chops or fried potatoes. Pancakes are generally taboo on these diets but the only thing wrong with a well baked pancake is the excessive amount of syrup in which it generally floats. I give my patients a generous well balanced diet, taking care that there is variety, plenty of vitamins and enough calories for the job on hand. A glass of milk or a sandwich will take care of the mid-morning or mid-afternoon hunger, and the same at bedtime if there be nocturnal distress. These men may have their dietary idiosyncrasies which one must respect, providing they are genuine. But many of their aversions are either bad habit or the result of faulty dietary advice.

The end result of these low-calory, restricted, monotonous diets and the persistent use of alkalies are too often protein deficiency, avitaminosis, a mineral shortage, or an alkalosis, either frankly clinical or sub-clinical.

After my preliminary history, examination, physical and x-ray, has confirmed my suspicion that I am dealing with this syndrome, the most important part of the examination is yet to come. When I have time and the assurance that I will not be interrupted I take these patients to my office to talk things over. I ask him to tell me his story; let him talk about anything that comes into his head, just asking enough questions to keep the narrative within bounds. I get his back-ground, both personal and familial. I get his reaction to his job, to his superiors on the job and to things in general. I never neglect to go into his family life. Are there domestic problems? Debts? Difficulties in balancing the budget? Does he start to work in the morning with a song in his heart or with his ears pinned back by the vehemence of a nagging wife? Are there troublesome children? Hope deferred which maketh the heart sick? Forgotten psychic insult only to be uncovered by psychoanalysis? All these are just a few of the factors that go into the etiology of nervous dyspepsia.

This takes several interviews and all the time I am guiding the inquisition to episodes which I suspect to be the psychological quirk which is the ultimate cause of the dyspepsia. I find it better not to take immediate notes. These men are often skittish and gun-shy until they get their stories off their chests and some trifle may stop the flow of their confessions.

In most of these cases the general practitioner will have no trouble uncovering the conflict at the root of the disease. In some cases, however, an expert psychiatrist may be necessary.

TREATMENT

And now what to do for your patient. Medically sedation is necessary. I generally use bromides. To

this I add belladonna or hyoscine in full therapeutic doses. However, recently there has been put on the market a tablet of phenobarbital, atropine and hyoscine that is quite efficient and more convenient than the liquid prescription. As mentioned before, the diet must be ample and varied. Malnutrition, avitaminosis, protein and mineral deficiency must be guarded against and in most cases these elements must be replenished. But more important you must get the patient re-oriented psychologically. Explain to him frankly the cause of his ulcer or dyspepsia. Be simple; do not bore him with burdensome detail or your verbosity.

By this time you should have sized him up and sensed the best approach. Some you must weep with; some you must pray with; some you must cuss; and to some, all that is necessary, is a simple statement of the problem. Theirs is an emotional problem. You must stimulate a healthful emotion to replace his perverse reaction. For instance, one of my patients had recurring ulcers for years. My interviews convinced me that he had been the victim of a dominating mother-in-law—wife combination. The father-in-law had been a preacher and the old lady had run not only her family but the church and everything else including the daughter's family affairs. It was a difficult situation and I could not see the answer and began to hedge. Finally I said "I feel that it is rather late to do much with your case. It has become chronic but if twenty-five years ago you had gone home drunk some night and thrown both your wife and her mother out of the house you would not have your ulcer." He stared at me for some time, leaned back in his chair, let go a fine belly laugh. The next day he asked for his release, and said he was going back to Texas to sit at the head of his own table for a change. That was four years ago. I have not seen him since but he writes me that his ulcer is cured.

Concerning the patients with the vague shifting complaints generally referred to the lower abdomen; the fellow with what is generally referred to as "colitis". From their capricious appetites and faulty dieting, many of them are in a state of chronic malnutrition. A rest in bed is often beneficial. Their pain is real, often a neuritis from avitaminosis. Analgesics may be necessary but generally a hot water bottle or an electric pad will suffice. If constipation is obvious and urgent—and most of them are constipated, a small oil enema is indicated. But re-education and psychic treatment is your only hope. A talk on the physiology of digestion and the functions of the colon and the evils of cathartic habit is helpful. A daily bowel movement is not necessary. Many perfectly healthy people do not have more than two or three bowel movements per week. The colon is not an eliminative organ but an absorptive organ by which the body avails itself of necessary fluids, vitamins and minerals. These folks are martyrs to vicious dietary habits. Often a doctor starts them on their way, later made worse by advice from friends or culled from advertisements or health columns of the daily papers. These cases will call for all the ingenuity and perserverance and personality that you possess. You are dealing with near-psychopathics. But the results will justify your patience and perspicacity.

The above sketchily outlined treatment will take care of from eighty to ninety per cent of the cases. And now I come to the exception which I noted above. Assuming that you have given your patient a careful physical examination: that you have ruled out certain surgical conditions such as appendicitis, cholecystitis, malignancy, some kidney conditions, that you have considered some endocrine disturbances, climacteric episodes in both male and female, hypoglycemia both frank and subclinical, both hypo- and hyperthyroidism, allergy and so forth, there are ten to twenty per cent that I put in a class by themselves. I refer to the intractable cases, the chronic dyspeptics, those unfortunate butts of jokes and jibes and Rabelasian humor. The literature back through Shakespear to the Roman Horace and the Greek Aristophanes have bitter quips at these unfortunates. Unfortunates they truly are, below-par males and females. They have not what it takes. They are congenetically poor protoplasm. They have headaches, malaise, dyspepsia, dysmenorrhea. On their abdomens you find the scars of their operations; appendectomies, cholecystectomies, cholecystotomies, herniotomies, oopherectomies, salpyngectomies, nephrectomies and I have actually seen on one belly the scars of three operations for adhesions. Truly these bellies, I have read some place—are the happy hunting ground of the occasional operator. The experienced surgeon shuns them like the plague. Operations, diets, alkalies, lavage gastric colonic adsorbents and absorbents, all to no avail. I can spot them coming and I confess I try to shunt them off on the more naive confrere.

One must depend on the roentgenologist to inform one of the presence or absence of a filling defect in the duodenum or the stomach or any gross organic deformity of the gastro-intestinal tract. I must know if there is a filling defect in the stomach. If gastric ulcer does not heal promptly—I would say if there are not positive signs of healing in three to five weeks by roentgenologic examination and complete healing in two to three months, one must consider the possibility or even probability of carcinoma. Gastric carcinoma is like brain tumor;

(Continued on Page 262)

President's Page

To the Members of The Kansas Medical Society:

Twenty-three physicians of The Kansas Medical Society, as well as several members of the Auxiliary, were registered at the recent American Medical Association Convention in Atlantic City. In spite of, or perhaps because of, the war situation, this has been one of the largest American Medical Association meetings ever held.

The House of Delegates functioned efficiently and well, and I believe that all important decisions made would be thoroughly in accord with the wishes of Kansas medicine. In later editions of the President's Page, I wish to discuss further several of these actions such as the approval of the National Physicians' Committee, and the action taken to prevent the inclusion of medical services in hospitalization and insurance plans. However, in the rest of this page I wish to bring to the attention of the Kansas profession the urgency of the medical needs for the armed forces and the necessity of meeting this need at once.

There are 180,000 physicians in the United States. Of these, 160,000 are active. Of this 160,000, 22,000 are already commissioned in the armed forces as of June 1, 1942, and 20,000 more are needed before January 1, 1943. One-half of this number is needed in active service by August 1, 1942. 160,000 voluntary enrollment forms have been returned by the doctors of this country. Of this number, 137,000 have been completely processed in Washington. All of the enrollment forms have been processed on physicians thirty-seven years of age or below, and all of the forms on the members between thirty-seven and forty-five years of age will have been completely processed within another three weeks. The Procurement and Assignment Service in Washington expects to call in person every able-bodied available physician below thirty-seven years of age to immediate service by July 15, and within a few weeks after this the physicians between thirty-seven and forty-five years of age will receive a similar call.

No one could hear the discussion of this question by Mr. McNutt, Surgeon General McGee, Dr. Lahey, and Colonel Seeley and other leaders without realizing that immediate service is required of this group of physicians. It is also authoritatively stated that General Hershey, head of Selective Service, has ruled that the question of dependency will not be recognized in any person rating a commission of first-lieutenancy or higher, and therefore, dependency will not be considered as applying to medical men.

The inescapable conclusion is that the need for medical men under forty-five years of age is immediate and urgent and must be immediately met.

Sincerely yours,

Henry N. Ticken, M. D.

President, The Kansas Medical Society.

EDITORIAL

MILITARY NEEDS FOR PHYSICIANS

The military forces of the country have urgent and immediate need for the services of a large number of doctors of medicine. The contemplated size of the Army, the addition of the Air force as a sizeable new unit, the development of a two ocean Navy, the methods and conditions of modern warfare, and numerous other factors have contributed greatly to that result. The military agencies of the nation and the Procurement and Assignment Service in Washington have, therefore, requested that every physician under forty-six years of age should apply for commission in the medical corps without delay.

To assist physicians in obtaining commissions, Army medical officer recruiting boards have been established in each state. These boards have been given authority to provide and approve physical examinations, to prepare necessary application papers, to grant commissions, and to assist in all other ways in filling the vacancies which now exist in the Army medical corps. The Kansas Medical Officers Recruiting Board, which is composed of Major R. W. VanDeventer and Major H. J. Dixon, opened offices at 215-17 Federal Building, in Topeka on May 19, and has engaged since that time in the above activities.

The Procurement and Assignment Service, through its national and state committees, is attempting to the fullest extent possible, to assist in coinciding the needed number of physicians for the military forces with civilian, industrial, and medical educational needs. It must be remembered in this connection, though, that the needs of the military agencies will require a very high percentage of all physicians under forty-six years of age and that, therefore, classifications of unavailability can be given only in very unusual instances. Physicians under forty-six years of age who are classified as unavailable will in the main be those who are the only physicians in their communities or who are otherwise irreplacable for civil, industrial or medical educational work.

The medical officers recruiting boards have been authorized to grant commissions in the rank of First Lieutenant to physicians of less than thirty-six years and ten months of age, and commissions in the rank of Captain to physicians betwen that age and forty-six years. Commissions of higher rank may be given only in instances of certain definitely prescribed qualifications.

The Navy has substantially filled its quota in the higher age brackets but it does have urgent need for a considerable number of younger physicians. The Army has need for many thousands of physicians in all age groups up to forty-six years.

As is announced elsewhere in this issue, physicians throughout the country who are less than forty-six years of age will soon receive letters from the Procurement and Assignment Service in Washington requesting that they apply for commissions if they have not already done so. Selective Service regulations will then become operative to the place that physicians who have not applied for commissions and who are classified as available and physically fit will in all probability need to be given a Selective Service re-classification of 1A. This is true by reason that National Selective Service Headquarters has ruled that individuals who are offered commissions and who refuse to accept them may not retain their Selective Service order numbers or a classification of 3A based upon dependents.

The medical profession will undoubtedly be glad to know that all arrangements and plans for the Procurement and Assignment program are now complete and that every doctor of medicine now knows what he can do and what it is desired for him to do. The medical profession has always been the first to volunteer its services to the nation in the time of war. It will not fail to do so in the present emergency.

SOCIETY COMMITTEES

Dr. Henry N. Tihen, President, has announced in this issue of the Journal on page 263, the new committee appointments for the year 1942-43.

Committee work has always been one of the most important functions of the Society program. To the committees are referred for consideration most of the projects and activities in which the organization engages, and through them are accomplished a great portion of the Society's efforts.

The Society at present has twenty-two standing committees and five special committees. The committees are divided on a specialized basis and an attempt is made to appoint members thereon who are interested and well familiarized with the work in their respective fields. Special committees serve on that basis until their work has been proven to be needed over a period of years, whereupon they are designated in the Constitution and By-Laws as standing committees.

Dr. Tihen has appointed three new special committees to serve during the next year. These are as follows: a Committee on Control of Appendicitis;

a Committee on Conservation of Hearing and a Committee on Plasma.

The name of the Committee on Medical Preparedness has also been changed this year to the Committee on War Work.

Dr. Tihen is to be congratulated for the excellent distribution and the arrangement of his committee appointments. The 341 members appointed on the Society committees for 1942-43 include at least one appointment for every county medical society in the State and in fact include at least one appointment for almost every county in the State. Likewise, the appointments indicate that careful consideration was given to efficient and equitable geographical distribution on each of the individual committees.

The committees will undoubtedly be confronted with many problems in attempting to carry forward their work during the next year. It is essential, though, for the sake of the war effort and for conditions after the war that this be accomplished. Likewise, the excellent appointments which Dr. Tihen has provided will be of great assistance toward that end.

ROBERT B. STEWART

Dr. Robert B. Stewart, who has been a most valuable member of the Editorial Board since its inception about seven years ago has located, at least temporarily, in California. He carries with him the best wishes of the Editor and his deepest gratitude for an immense amount of work done for the Journal, especially on the editorial page. It will remain our hope that he will return to his native State and resume his former position in medical and community life.

Dr. L. R. Pyle and Dr. Don C. Wakeman are serving with the armed forces and will be joined shortly by Dr. L. E. Eckles, reducing the Board to one member who will endeavor to carry on.

WAR PRODUCTION

During the recent state meeting at Wichita, the editor had the unusual privilege of making a tour of the Boeing Airplane plant, which is an important link in our country's war effort. The courtesy was extended by Mr. J. Earl Schaefer, the Vice-President of Boeing and Manager of the Wichita plant, who personally conducted the small party. Being average physicians, engaged in repair work rather than in mass production by assembly line methods, we could not help being greatly impressed by the magnitude of the enterprise.

Not the least interesting department is that devoted to the testing of metals by high-powered photographs, which show the structure as a microscope reveals the cellular arrangement of a tumor. X-rays reveal flaws in castings and another method deposits an iron stain in any flaw. However, the most interesting thing is the human phase with hordes of workers from our middle western states, busily engaged in individual tasks that contribute to the production of airplanes for our armed forces.

The visit gave a spiritual uplift and a new confidence, with the vision of the mighty coordinated effort going on all over the nation, which will lead to an ultimate victory for democratic ideals.

CANCER CONTROL

CARCINOMA OF THE STOMACH

James S. Hibbard, M.D.

Wichita, Kansas

In a paper appearing in this section of the Journal of The Kansas Medical Society, Dr. Howard Snyder of Winfield has very ably discussed the general subject of carcinoma of the stomach. He brought out the facts concerning gastric carcinoma in relation to the impressions and thoughts of the patient. He described in detail the enormous effort being expended by the Women's Field Army, The Kansas Medical Society and the Kansas State Board of Health in educational campaigns so that the public will not only be well informed of cancer of the stomach, but will seek competent medical attention at the beginning of the early signs and symptoms of the disease.

The present problem, of vital importance, concerns entirely the attitude of the practicing physician toward carcinoma of the stomach. The unfavorable results in the treatment of this disease, occurring even after the patient seeks medical attention, present a challenge which should not be ignored. In the light of our present knowledge, fifty per cent of patients with cancer of the stomach are clinically inoperable at the time of diagnosis. When patients of this group are explored, only forty to forty-five per cent are deemed resectible. The immediate mortality of the cases in which resection is done varies from ten to twenty-five per cent. Follow up studies reveal that only twenty-five per cent of the cases surviving gastric resection can be expected to live

five years. These statistics agree favorably with those reported by Cooper[1] from the New York Hospital. In a total of 264 cases with proved cancer of the stomach he found only ten cases living and free from the disease three years later. He stresses the fact that few physicians practicing in small communities are fortunate enough to observe cured cases and that physicians seeing large series of cases in our medical centers only occasionally see five year cures.

Analysis of facts show that the medical profession as well as the patient may be at fault for the late diagnosis of carcinoma of the stomach. Far too frequently patients showing symptoms of indigestion are not thoroughly investigated. The knowledge that there are no typical symptoms of early carcinoma of the stomach should definitely be accepted. Failure to recognize this fact and failure to demand an accurate diagnosis of all cases presenting symptoms of indigestion definitely increases the percentage of advanced cases.

Gray[2] points out that the familiar picture of gastric carcinoma painted in text books and impressed on the minds of many physicians is that of an advanced stage and if a cure is to be attained, the disease must be recognized before the characteristic signs develop.

Another factor responsible for a delay in diagnosing cancer of the stomach is the widespread disagreement on the malignant possibilities of gastric ulcer. Not only do physicians practicing in small communities allow carcinoma to progress in an area previously diagnosed as a benign ulcer, but also reports of such cases are not infrequently found in our large clinics and hospitals. Either these patients had failed to report for follow up studies at the appointed time or an error had occurred in the x-ray interpretation.

The common impression in the medical profession is that the x-ray diagnosis is extremely accurate in differentiating gastric lesions. Comfort and Butsch[3] report a seven per cent error in diagnosing malignant gastric ulcers in contrast to a thirty per cent error in diagnosing benign gastric ulcers. Gray states that at the Mayo Clinic roentgenologists diagnose about nine per cent of the malignant ulcers of the stomach as being benign, whereas in a much higher percentage it is impossible to draw a definite distinction between a benign and a malignant ulcer. Therefore, the general impression should be that the roentgenologist is about eighty-five to ninety per cent accurate in the diagnosis of cancer of the stomach.

The apparent widespread information that a study of the gastric contents for achlorhydria is extremely important should be discouraged. Even though achlorhydria at times suggests the possibility of a diagnosis of carcinoma, the presence of free hydrochloria should never be interpreted as conclusive proof of a benign lesion.

The treatment of choice when it is possible to differentiate between a benign and a malignant ulcer is exceedingly difficult to determine. The accepted answer advocated by many of the leaders in this field is the use of a short medical test period, checked up by accurate x-ray observations. It is pointed out that favorable response to this medical test period is a criterion of benignancy. Relief of symptoms, disappearance of the ulcer crater in the roentgenogram, and disappearance of blood from the stools is said to be indicative of a benign ulcer. In the Wichita hospitals we have been very much disappointed in using a routine medical treatment period. Far too many patients have developed inoperable carcinoma of the stomach even after they have fulfilled all the requirements of a benign lesion. The incidence of these cases is not great, but their importance is shown by the many case reports appearing in the literature from all hospitals and clinics. A great responsibility is assumed by any physician who recommends non-surgical treatment in a patient presenting a doubtful ulcerating lesion of the stomach.

A crusade against the above mentioned factors appears to be the main point of attack in reducing the entirely too high death rate in carcinoma of the stomach. Proper educational programs should be instituted in order to impress on the medical profession the changing aspects of gastric carcinoma. Our slogan should be first that indigestion in adults demands an accurate diagnosis, and second, that all chronic gastric ulcers are potentially malignant and should be treated accordingly.

During the last few years it has been our custom in Wichita to advise all cases of chronic gastric ulcer to be hospitalized in preparation for surgery. We feel that the low mortality rate of gastric resection is more acceptable than the incurrent dangers of malignancy.

ASEPTIC RESECTION

Although aseptic intestinal resection was described thirty-four years ago, it has only been within the last four years that a decided effort has been made to lower the mortality in gastric resection by its use. Probably this is one of the most important refinements to be developed in surgery of the stomach. In the early days many questions arose as to the relative merits of various types of procedures, methods of sutures, and principles of reestablishing gastrointestinal continuity. The results of these refinements appear to depend largely upon the individual traits of the operator and although deserving meticulous study, they should not be considered as the

basic principles of gastro-intestinal surgery.

Aseptic resection was primarily developed to use in carcinoma, due to the achlorhydria present. Because of the enthusiasm of the originators, however, many surgeons are using it routinely for the entire gastro-intestinal tract. Wagensteen[4,5] has demonstrated that its superiority, in contrast with the open anastomosis, is so great that its followers are gradually increasing in number.

Aseptic anastomosis may be accomplished either by the clamp method or by the Parker-Kerr[6] basting stitch method. The more commonly used clamp method as first advocated by Wangensteen and later by Holman[7] depends upon the principle of cautery asepsis and hemostasis. Two rows of aseptically placed sutures are placed both anteriorly and posteriorly to special thin bladed clamps. As the clamps are withdrawn, the inner layer of sutures is drawn taut and tied. Both writers advocate a continuous suture of fine catgut for the inner row and an interrupted fine silk suture for the outer row. This method shows a well-healed line of mucosa in fourteen days, as demonstrated by Wangensteen and Gerbode.[8] When compared with the open method, in Gerbode's experiments, it is found superior. Furthermore, the Furniss clamp and its modifications, as well as the sewing machine clamp, are mentioned only to be condemned. The use of these mechanical clamps necessitates perforating the bowel lumen, which obviously detsroys the asepsis of the closed method.

In our cases of aseptic resection we have observed a much smoother convalescense, although the time consumed at operation is definitely lengthened. We have been impressed with the fact that soiling is impossible and have noticed that the post operative return of fluid from the stomach by suction is much less bloody than in the open anastomosis. No difficulty has been encountered as yet when the patients were allowed food by mouth.

The basic principles of cancer surgery should be strictly adhered to in the removal of carcinoma of the stomach. Procedures of less magnitude, irregardless of the size of the lesion, should not be tolerated. Segmental resection and Billroth I type of resection in general definitely do not meet the requirements of wide excision and should be relegated to benign lesions. Preliminary gastroenterostomy allows a resectible malignancy to advance to an inoperable state. Gastroenterostomy in non-resectible cases does not materially lengthen the life of the patient and its humanitarian value is questionable. In lesions of the cardia the surgeon should not be tempted to demonstrate his ability by performing useless gastrostomies, although he should not forget that these lesions in selected cases have now been justly consigned to the realm of radical resection.

The value of the technique of including the entire lesser curvature and the omentum in an attempt to include the lymphatic areas as widely as possible, has been definitely proven.

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Treatment of Physicians Testifying in Court for Government: The occasional attempts of lawyers, by insulting, abusive attacks, to impeach the scientific objectivity, credibility and truthfulness of physicians testifying in court on behalf of government agencies, such as recently occurred in a Federal Trade Commission hearing, are assailed by The Journal of the American Medical Association for August 30. Commenting on "Doctors in Court and Lawyer Tactics," The Journal says:

"Frequently physicians are requested to testify in court in behalf of governmental agencies. As public spirited citizens they do this at great sacrifice of time and energy and with no remuneration other than reimbursement for expenses. In cities such as Washington, Chicago and New York, where the Post Office Department, the Food and Drug Administration and the Federal Trade Commission are particuluarly active, the demands made on the time of such physicians are sometimes inordinately heavy. Government officials have said repeatedly that the enforcement of the laws administered by the agencies mentioned would hardly be possible without this generous, voluntary cooperation of the medical profession. When a physician appears in court in the performance of a civic duty he is usually treated with courtesy and respect. Most practitioners of law recognize the nature of the situation and the professional status of their colleagues in medicine. Some lawyers, however, in their zeal to win, forget the decencies. In a recent hearing before the Federal Trade Commission a number of distinguished medical scientists, Drs. A. J. Carlson, Victor C. Myers and Donald D. Van Slyke, testified for the government against claims made by the Bristol-Myers Company for its product 'Sal Hepatica.' The claims concerned largely the problem of acidosis. According to an account of the trial, these scientists, who were there to perform a public service, were subjected to an insulting, abusive attack, endeavoring to impeach their scientific objectivity, credibility and truthfulness, and they were assailed then as to their motives and integrity. Apparently the attorneys were not content with an examination of the facts of the testimony. In this instance, it seems likely, the tactics employed will reap their just reward."

In every mental institution tuberculosis is a problem of first order. Of the deaths from tuberculosis in the United States, 5.2 per cent occur in mental hospitals while only 15.9 per cent are in tuberculosis hospitals.—American Review of Tuberculosis.

MEDICAL SCHOOL

POLYURIA AND BRAIN TUMOR*

L. E. Maurer, M.D.

Frank C. Neff, M.D.

Kansas City, Missouri

The advisability of follow-up observation, in a child whose only complaint and evidence of abnormality at first was polyuria, is illustrated in the case we hereby report.

CASE REPORT

First Hospital Admission, October 29, 1940. This twelve year old boy was admitted to the University of Kansas Hospitals with a diagnosis of diabetes insipidus. Four months prior the patient had a sudden onset of nocturia and polydipsia. Urine was passed as many as eight times nightly. The family physician prescribed pituitrin and later pitressin with some temporary relief, but at this time the patient's out put was about 3500 cc. daily. Physical examination was entirely negative. X-ray revealed a pineal body markedly calcified, without significance, and a small sella. A normal blood pressure was found throughout the course. During the hospital stay the patient was given surgical pituitrin, one-half cc. intranasally twice daily, and become symptomatically improved.

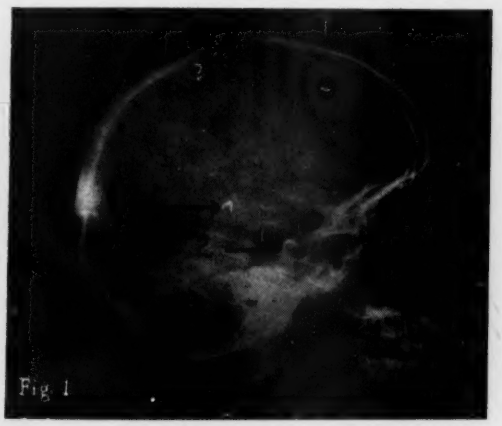

Fig. 1. Roentgenogram of Skull. 1. Calcified pineal body (without significance). 2. Normal sella tursica.

Eight months later he developed visual loss, headaches and vomiting. The patient had stopped the use of pituitrin intranasally, followed by increased polyuria. He was having progressive loss of vision until he was unable to read. The mental attitude had undergone a marked change. For a period he became impatient and provoked at the family, but then went to the other extreme of satisfaction with everything.

Fig. 2. Nine months later. 1. Calcified pineal body. 2. Roentgen film shows that there had been an increase of 100 per cent in size of sella, and there had developed an irregularity of the posterior clinoid plate.

Second Admission, August 4, 1941: The boy was cheerful and cooperative. The gait was hesitant, suggesting blindness. The eyes reacted to light but questionably to accommodation. There was no vision in the right eye, but 15/200 in the left eye. The fundi showed bilateral cupping with some whiteness of both discs, indicating optic atrophy. Blood pressure was normal. Blood counts and chemistry normal. Roentgen examination of the skull gave no definite evidence of increased intracranial pressure. Reference made to plates taken nine months before showed approximately 100 per cent increase in size of sella, consistent with an intrasellar tumor.

Third Admission, August 18, 1941: Craniotomy was performed by Dr. Teachenor and Dr. Coburn. The right optic nerve was found to be swollen and displaced mesially. Bulging between the two optic nerves was a tumor mass, purplish-red in color. The growth was found to have a tough capsulate which was free of the optic chiasm. A portion of the tumor as removed with biopsy forceps. The histologic section showed undifferentiated teratoma of the sella. Following the operation there was a stormy time for three or four days but gradual and steady improvement with dismissal on the eighteenth post-operative day in good condition. There was some improve-

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ment in the condition of the right eye; the left eye showed considerable improvement. The patient was able to color books and performed actions previously impossible.

Fourth Admission, October 11, 1941: The boy had gotten along very well for one week after going home until he acquired an upper respiratory infection, after which he lost his appetite and began vomiting. He became unable to retain fluid or food. The polyuria and polydipsia again became quite marked. Physical examination revealed pallor and emaciation. There was no detectable vision in the right eye, but some in the nasal field of the left eye. Death occurred on the second hospital day.

Autopsy presented a malignant chordoma, arising from the bony tissue at the base of the sella tursica causing pressure atrophy of the pituitary gland; additional findings were internal hydrocephalus, encephalomalacia of right frontal lobe, bronchopneumonia and Meckel's diverticulum.

SUMMARY

The significant features of this case are: Sudden onset of polyuria with negative x-ray and physical examination; symptomatic improvement with the use of pituitrin; the development of radiographic and clinical signs of an intra-sellar tumor nine months later; an immediate transitory improvement following removal of the tumor; the finding at biopsy and autopsy of malignant chordoma of sella tursica. Pneumonia was the immediate cause of death.

Nursing Council Conducting Survey—One of the first projects of the Nursing Council on National Defense, organized in July 1940, was a nationwide survey of registered nurses to determine their availability as the need arose, Pearl McIver points out in the March-April issue of War Medicine, published by the American Medical Association, Chicago, in cooperation with the National Research Council, Washington, D. C.

The Japanese death rate is 17.4 per 1000 as compared to ten or eleven in the United States. Japan's present death rate, in fact, resembles ours of 1900. Individual causes of death in Japan are about as prevalent now as in this country about 1900. For example, the United States tuberculosis death rate now is forty-five per 100,000. In Japan in 1937 the rate was 204, closely resembling our tuberculosis death rate in 1900 of 196. The picture is similar for diarrhea and enteritis. America has more than twice as many men to draw on in the military age group as Japan—twenty-five million men from twenty to thirty-four, as against Japan's eleven million in this age group. Science News-Letter.

TUBERCULOSIS CONTROL

PROMIN IN THE TREATMENT OF TUBERCULOSIS

In 1938, sulphanilamide was reported to have an inhibitory effect on the development of experimental tuberculosis in guinea pigs but subsequent papers held out scant hope that this agent would prove to be a specific remedy for tuberculosis in human beings.

Promin in its solid form varies from white to light yellow and is slightly hygroscopic. It is highly soluble in water and forty per cent solutions are stable indefinitely and may be sterilized by heat. It is slightly bitter but small amounts may be mixed with the food of animals without impairing their appetite or digestion. Guinea pigs tolerate one per cent promin in their foods and will consume from 300 to 400 mg. of the drug per twenty-four hours. Increasing the concentration of promin to two per cent, causes anorexia which interferes with the quantity of food taken.

In the first experiment, promin to the amount of one per cent was added to the feed of thirty guinea pigs while twenty others received the same diet but without promin. Two days after the feeding experiment began, all guinea pigs (fifty) were inoculated subcutaneously with human tubercle bacilli of known strain. On the eighty-fourth day all the animals in the control group had died and twenty-four of the animals which had received promin were living. Promin was then removed from the diet of twelve of the survivors. After eighty-two days more, thirteen animals still lived, five of which had received promin for the entire period (166 days) and the other eight for the first period of eighty-four days only. The purpose of this procedure was to determine if latent tuberculosis would become reactivated when treatment was discontinued.

The value of a chemotherapeutic agent must be appraised not only on survival time, but also on the character of the disease process. With one exception the degree of tuberculous involvement in the animals that received promin was notably less than in the controls.

Although the results indicated that in many of the animals promin either had prevented the establishment of lesions or had caused their eventual disappearance, another effect of the drug which is perhaps of more importance was that which it exerted on the cellular elements of the lesions. In the vast majority of the animals in the treated group

that had lesions, the histopathological characteristics of the disease process apparently were modified favorably. This was especially true of the lesions in the parenchymal tissues. The lesions were usually small and discrete and the epithelioid phase of the reactive process predominated. Necrosis was infrequent and a tendency of the process toward fibrosis was observed frequently. These features of the morbid process were in marked contrast to those that characterized the disease in the control group of animals. In the latter the disease was extensive, destructive and progressive.

The objectives of the second experiment were: (1) to confirm results of the first and (2) to determine what effect, if any, promin might have on a tuberculous infection introduced at the same time as or at varying periods before treatment with promin was begun.

Eighty guinea pigs were selected and divided into eight groups. Group one consisted of twelve animals infected but not treated (controls). Group eight consisted of twenty animals whose treatment began two days prior to infection. Groups two to seven each contained eight animals and treatment was begun, in relation to the day of infection, at various intervals as follows:

Group 2—day of infection
Group 3—three days after
Group 4—one week after
Group 5—two weeks after
Group 6—four weeks after
Group 7—six weeks after

All animals (one exception) reacted to tuberculin. Generally speaking, the reactions of the animals that received promin were less severe than those of the untreated animals.

While the general physical condition of the animals remained satisfactory, changes indicative of toxic manifestations were noted in the blood and spleen. Studies, as yet incomplete, indicate that in guinea pigs, promin may induce a hemolytic type of anemia but with adequate regeneration as indicated by a corresponding reticulocytosis.

The difference in survival times of the several groups was striking. When the last of the untreated animals died, 189 days after inoculation, eighty-four per cent of the treated animals were still living. Of the treated animals that died, none had sufficient tuberculosis to account for death, and this percentage of deaths might reasonably be considered an average or normal mortality rate for guinea pigs.

Examination of the tissues and organs of the animals showed that all untreated animals were tuberculous, that in fifty-seven per cent of the treated animals no evidence of infection in the visceral organs was found, that in the remainder of those treated tuberculosis was found (with a few exceptions) of minimal severity and that forty-three per cent of the treated animals failed to show evidence of disseminated tuberculosis.

The failure to demonstrate lesions of tuberculosis in a considerable number of the animals that were treated and the further fact that the disease in the treated animals was, with few exceptions, minimal and nonprogressive indicate that the action of the drug was significant. That fairly comparable results occurred in the treated animals, regardless of whether the administration of the drug was started before or as long as four or six weeks after inoculation with tubercle bacilli, was surprising and must indicate that the drug was effectively operative against a tuberculous infection in which morbid changes already were established when administration of the drug was started.

The conclusion of the two experiments is that promin had a deterrent effect on experimental tuberculous infection. — From Promin in Experimental Tuberculosis, Wm. H. Feldman, M.D., H. Corwin Hinshaw, M.D., and Harold E. Moses, M.D., Amer. Rev. of Tuber., March, 1942.

Note: Encouraged by these carefully controlled animal experiments, promin has been used guardedly in the treatment of a few cases of tuberculosis in human beings. Administration of the drug has proved difficult since its toxic effect in man is found to be much higher than in the guinea pig. In certain cases it has been found necessary to discontinue treatment because of unfavorable symptoms attributed to the drug itself. In other case where treatment has been prolonged (five months or more) results thus far show varying effects. In a few, definitely demonstrable improvement occurs; in others little or no change is observed; while in some patients, the disease goes on developing progressively with no apparent effect from the treatment.

It is obvious that a freshly infected guinea pig presents a very different pathological picture from that of a well developed human case with destruction of tissue and extensive fibrosis which interferes with the access of the drug to living tubercle bacilli.

Despite the present lack of convincing evidence of promin's value in the treatment of human tuberculosis, there appears to be a definite feeling that further trial in skilled hands is indicated.

PEPTIC ULCER

(Continued from Page 253)

at times the diagnosis is easy, self evident, it just cannot be anything else. And at other times it is very difficult. There may be just the mildest dyspepsia and slight ill health; even it may be entirely symptomless until obstruction and attendant vomiting tell the story.

Any gross deformity of the duodenum or of the stomach calls for surgery. At times apparent obstructions relax under the regime mentioned above. I have also seen gall bladders relax and resume their functions under the same treatment. I am not qualified to discuss exact surgical procedures to be employed, except to say that I do not think that a properly done gastro-enterostomy is the discredited operation that one might suspect from the literature

coming out of some of the clinics. By the same token I am not prepared to recommend a gastric resection for a stubborn duodenal ulcer.

A mortality of two to six per cent is reported from some clinics. But these are the results of work done by surgeons with special training. The ideal gastric resection includes the entire acid-bearing area of the stomach, the premise being, "No acid, no ulcer" but the end results of these gastric resections are still in doubt both as to immediate and collateral implications. So I say, "Let the master surgeons, especially skilled in this line of surgery, go ahead with the pioneer work and the rest of us can wait until the returns come in from the hinterlands before adding gastric resections to the exploits of even our best general surgery."

SUMMARY

The consideration of duodenal and gastric ulcers as an entity should be discontinued because they are symptoms of a more inclusive syndrome of digestive complaints which are neuro-psychic in origin. Hence, their treatment with restricted diet and alkalies is unsound.

The family doctor is generally psychiatrist enough to handle these cases; occasionally a trained psychiatrist should be called in.

A certain number of these cases are intractable. In the present state of our knowledge of heredity and of the sympathetic nervous system no treatment is of avail.

The underlying principle of the modern management of cancer is coordinated team work. It is improbable that any one man can perform all of the duties and carry out all the techniques required. Any organization that sets itself up to manage cancer must contain at least a surgeon, a roentgenologist and a pathologist. This is the minimum requirement in personnel. There should also be added to the group an internist to advise concerning the diagnosis of cancer in deeper organs, and specialists who devote attention to each particular part of the body for advice in connection with tumors in special locations. It would be well also to have on such a team a chemist and a physiologist. These could offer many helpful suggestions concerning special features of this disease. Each member of the team should have equal standing. Each should be considered as a consultant who is able to add something to the full understanding of cancer and to its management in any particular patient.—James P. Simonds, M.D., Chicago, Ill., Med. Jour., Vol. 81, No. 5, May, 1942.

About one-fourth of the families in the United States have good diets; more than a third, diets that might be considered fair; another third or more, diets that are poor. —Bulletin, National Tuberculosis Association.

NEWS NOTES

PROCUREMENT AND ASSIGNMENT

The Kansas Committee on Procurement and Assignment for physicians forwarded the following bulletin to each member of the Society on June 29:

"IMPORTANT INFORMATION RELATING TO THE PROCUREMENT AND ASSIGNMENT SERVICE PROGRAM FOR PHYSICIANS

To: All Members of The Kansas Medical Society—Information was given at the recent meeting of the American Medical Association held in Atlantic City, New Jersey, which is of particular importance in regard to the needs for physicians in the military forces and as to certain new procedures which are being placed in effect immediately to assist in filling those needs.

The Kansas Committee on Procurement and Assignment Service for Physicians discussed this information at a meeting held on June 21 and decided that a bulletin describing this data should be prepared and forwarded to the entire membership of the Society.

The following, therefore, is an attempt on our part to summarize the above information and also certain other information on this topic:

I. Need for Physicians: The Army has urgent and immediate need for a very large number of physicians up to forty-six years of age; the Army Air Force has similar need for a large number of physicians in the same age group; and the Navy needs approximately 3000 physicians who are less than fifty-seven years of age.

The needs in this connection are very serious and they must be supplied without delay.

The Government, therefore, issued a request at the Atlantic City meeting that every doctor of medicine in the country who is less than forty-six years of age should immediately apply for a commission.

The above request is an urgent one. The Government asks that every obtainable physician under forty-six years of age realize that his services are needed; that they are needed now; and that he can render great assistance to his country by applying at the present time.

II. Changes in the Procurement and Assignment Program: To facilitate the filling of these needs, the Procurement and Assignment Service program has been materially changed, effective June 15. The new program will operate as follows:

All physicians under forty-six years of age, who have not as yet applied for a commission, will receive a letter from the Procurement and Assignment Service in Washington within the near future, requesting that they do so.

Every physician receiving a letter of this kind will then be given two weeks in which to apply for a commission.

If a physician thereupon applies for a commission and is found to be unavailable by reason of civilian, industrial or medical educational necessities, or is physically disqualified for military service, he will be expected, at least for the present, to serve his country in a civilian capacity. Physicians in this category will also be exempted from the provisions of the Selective Service Act.

If, however, a physician does not apply for a commission within the two week period, his name will be forwarded

to State Selective Service Headquarters with notice that he is no longer under Procurement and Assignment Service jurisdiction and with authorization for his Selective Service status to be re-classified. This procedure would probably mean that the physician involved will immediately be placed in class 1-A, inasmuch as National Selective Service Headquarters has ruled that an individual can not maintain a 3-A classification or retain his Selective Service order number if he is offered a commission and refuses to accept it.

The re-classification to 1-A would, also, obviously mean that the physician would soon be inducted under the Selective Service Act, regardless of his dependents or other circumstances, and that he might or might not be transferred to the Medical Corps at a later date.

III. Classifications of Availability and Unavailability: The present needs are so great that it will be difficult for the State Procurement and Assignment Committees to classify any sizable number of physicians under forty-six years of age as unavailable. Physicians within this age group who are classified as unavailable will in the main be those who are the only sources of medical service in their communities or who otherwise are irreplaceable for civilian, industrial and medical educational needs. The present theory in this regard is, and must be, that older physicians will need to take over the work being performed by young physicians, in order that the latter may be made available for military service.

IV. Physicians in the Older Age Groups: Where physicians in the older age groups feel they can be spared from their present work, they will render a very valuable service to their country by volunteering to fill vacancies in civilian and industrial practice. Physicians who can assist in this matter are asked to file their names with the Society Central Office or this Committee.

V. Places to Apply for a Commission: Every state now has a Medical Officer Recruiting Board which is authorized to provide and approve physical examinations, to complete application papers and to otherwise expedite the obtaining of Army Medical Corps commissions for physicians. The Kansas Board for this purpose is located at 215-217 Federal Building in Topeka. Kansas physicians desiring to apply for Army commissions should write that Board for an interview appointment. Applications for other branches of the service may be made through the Surgeon Generals of those services.

VI. Physical Requirements: The physical requirements in the Navy are very strict. Color blindness, deficient vision and other types of disabilities will disqualify an applicant.

The Army has two types of physical requirements, one for regular service and another for limited service. Regular service requirements are rather strict. Limited service requirements, however, are very liberal and make possible the acceptance of applicants with various kinds of disabilities. The only difference between regular service and limited service is that the latter does not permit duty with combat troops.

By reason of he above difference in physical requirements, rejection by one branch of the service does not necessarily mean that acceptance can not be had in another branch.

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Our Committee feels the above information is of very great importance and that it deserves the careful consideration of every doctor of medicine in the country. The foremost and proudest heritage of the medical profession has always been that it has never failed in the time of an emergency. It must not fail America in the present one.

Kansas Committee on Procurement and Assignment Service for Physicians: F. L. Loveland, M.D., Chairman, Henry N. Tihen, M.D., C. D. Blake, M.D., C. S. Huffman, M.D., N. E. Melencamp, M.D., W. M. Mills, M.D., C. C. Nesselrode, M.D., Alfred O'Donnell, M.D., Marion Trueheart, M.D."

Additional data in regard to the needs for physicians in the military forces is contained on page 255 of this issue.

COMMITTEES

Dr. Henry N. Tihen of Wichita, President, has announced the following new Society committees to serve for the year 1942-1943:

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ANNUAL RE-REGISTRATION

The annual registration fee for Kansas doctors of medicine is due and payable on July 1, 1942. The fee is $1.00 until October 1, after which time there is a penalty of $5.00 which is required by law for reinstatement of a license.

Notices have been mailed recently to the last known address of each licensee and if any doctor has not received his notice he should immediately notify Dr. J. F. Hassig, Secretary of the Kansas State Board of Medical Registration and Examination at 905 North Seventh Street, Kansas City, Kansas. Payment of the fee, under the Medical Practice Act, cannot be waived for any reason whatsoever. The Board wishes this were possible in the case of physicians serving in the armed forces, but under the law this is impossible.

APPOINTMENTS

Governor Payne H. Ratner recently announced the appointment of Dr. F. L. Loveland of Topeka and Dr. Hugh A. Hope of Hunter as members of the Kansas State Board of Health.

Dr. Loveland and Dr. Hunter take the places of Dr. James T. Reed of Iola and Dr. W. C. Lathrop of Norton, respectively, both of whom died recently.

COMMISSIONS

The Kansas Medical Officer Recruiting Board located at 215 Federal Building, Topeka, has commissioned the following Kansas physicians as officers in the Medical Corps, of the Army, as of June 20:

Ralph E. Bula, Lyons ..... First Lieutenant
Harold R. Barnes, Hutchinson ..... Captain
Donald A. Kendall, Great Bend ..... Captain
Edward D. Greenwood, Topeka ..... Captain
Leo L. Wenke, Great Bend ..... First Lieutenant
Funston J. Eckdall, Emporia ..... Captain
Virgil E. Brown, Sabetha ..... First Lieutenant
Rae Arthur Richeson, Kansas City, Kansas ..... Captain
James T. Fowler, Osawatomie ..... First Lieutenant
Lyle F. Schmaus, Iola ..... Captain
Rudolph T. Unruh, Goessel ..... Captain
George R. Lee, Yates Center ..... Captain
Douglas H. Wood, Pittsburg ..... First Lieutenant
Harold L. Graber, Topeka ..... First Lieutenant
Edward H. Stratemeier, Askew ..... First Lieutenant
Kenneth R. Hunter, Lebo ..... First Lieutenant
John F. Nienstedt, Hartford ..... First Lieutenant
Hiram P. Jones, Lawrence ..... Captain
Edwin W. Enders, Lawrence ..... Captain
James F. Zagaria, Topeka ..... First Lieutenant
Raymond J. Leiker, Great Bend ..... Captain

CIVILIAN DEFENSE

The county medical societies are urged to complete and to strength their plans for civilian medical defense.

In the event of sabotage and other civilian disasters, care-

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THE KANSAS MEDICAL SOCIETY

fully prepared plans of this kind would be of particular value in providing care for the injured.

The Society central office will be happy to provide any information or assistance possible or desired on this subject.

OSTEOPATHIC SANITORIUM

The Southwest Osteopathic Hospital and Sanitorium at Wichita recently announced that it has closed its school of nursing.

The institution formerly held itself out to train registered nurses.

A. M. A. MEETING

The ninety-third annual session of The American Medical Association was held in Atlantic City, New Jersey, from June 8 to June 12. The total registration at the meeting was 8,238. Guests registered from the following countries: Canada, Brazil, Cuba, Columbia, Argentina, Mexico, Chile, Venezuela, Costa Rica, Peru, San Salvador, Haiti, Uruguay, Bolivia, Paraguay, South Africa, Persia, China, Greece and British Guiana.

Kansas members who attended were as follows: Dr. Lewis G. Allen of Kansas City, Dr. C. D. Blake of Hays, Dr. Iran R. Burket of Ashland, Dr. Ralph I. Canuteson of Lawrence, Dr. L. A. Calkins of Kansas City, Dr. Cora E. Dyck of Moundridge, Dr. E. S. Edgerton of Wichita, Dr. H. M. Floersch of Kansas City, Dr. John L. Grove of Newton, Dr. J. F. Hassig of Kansas City, Dr. C. A. Hellwig of Wichita, Dr. Irene Koeneke of Halstead, Dr. J. L. Lattimore of Topeka, Dr. Paul H. Lorhan of Kansas City, Dr. F. L. Loveland of Topeka, Dr. L. R. McGill of Hoisington, Dr. H. C. Markham of Parsons, Dr. Don Carlos Peete of Kansas City, Lt. Commander Lucien R. Pyle of Topeka, Dr. Earl Saxe of Topeka, Dr. C. F. Taylor of Norton, Dr. H. N. Tihen of Wichita, Dr. Claude C. Tucker of Wichita, Dr. Wm. S. Walsh of Halstead and Mr. C. G. Munns of Topeka.

Dr. Fred W. Rankin of Lexington, Kentucky, was installed as the new President for the year 1942-43 and Dr. James E. Paullin of Atlanta, Georgia, was elected as President-Elect. Other officers elected were as follows: Dr. William J. Carrington of Atlantic City, New Jersey, as Vice President; Dr. Olin West of Chicago, Illinois, as Secretary; Dr. Herman Kretschmer of Chicago as Treasurer, and Dr. Edward M. Pallette of Los Angeles, California, and Dr. R. L. Sensenich of South Bend, Indiana, as members of the Board of Trustees.

The scientific exhibits and the technical exhibits were among the largest and most complete ever presented.

Decision was made that the 1945 annual session shall be held at New York City. Since the American Medical Association selects places of meeting three years in advance, in accordance with decisions made at past meetings, the 1943 meeting will be held at San Francisco and the 1944 meeting will be held at St. Louis, Missouri.

CONSTITUTION AND BY-LAWS

The Society Committee on Constitution and By-Laws recently completed a new pamphlet containing the Constitution and By-Laws of the Society and the Code of Ethics of the American Medicay Society. Copies of the pamphlets were mailed to all members on June 2.

LAMPS ON THE PRAIRIE

A new book entitled "Lamps on the Prairie," describing the history of nursing in Kansas, was recently published under the sponsorship of the Kansas State Nurses Association.

The book was prepared from records, histories and interviews under the writer's program of the Work Project Administration in the State and with the assistance of the members of the Kansas State Nursing Association Committee on the History of Nursing of which Cora A. Miller of Emporia is the chairman.

Copies of the new book may be secured by writing Cora A. Miller, The Kansas State Nurses Association, 817 State Street, Emporia, Kansas. The price of the book is $3.00.

BLIND PROGRAM

Dr. H. L. Kirkpatrick, Supervising Opthalmologist, for the Kansas State Board of Social Welfare, recently issued the following report pertaining to examination and treatment services furnished under the Kansas blind program for the month of May, 1942:

AID TO THE BLIND

	May	1942	'38 to '42
New Examinations—Eligible	29	104	2579
Ineligible	20	68	1893
Totals	49	172	4472
Re-Examinations	8	40	466

RESTORATION OF SIGHT

Eligible for Treatment	21	81	1162
Under Treatment			148
Completed			
Still Eligible for "A.B." after Treatment	7	28	229
Ineligible for "A.B." after Treatment	3	34	396
Total	10	62	625

PREVENTION OF BLINDNESS

Eligible for Treatment	12	51	619
Under Treatment			106
Completed Cases			
Eligible for "A.B." after Treatment	1	1	5
Ineligible for "A.B." after Treatment	15	52	391
Totals	16	53	396

BOARD OF HEALTH MEETING

The Kansas State Board of Health held its annual quarterly meeting in Topeka on June 25.

Members of the Board present were: Dr. G. I. Thacher, Dr. G. A. Leslie, Mr. Wm. E. Scott, Dr. J. L. Lattimore, Dr. J. F. Gsell, Dr. H. L. Aldrich, Dr. R. W. Urie, Dr. R. T. Nichols, Dr. F. L. Loveland and Dr. Hugh Hope.

Major actions taken by the Board at the meeting were as follows: Dr. F. C. Beelman, who has been acting Secretary since the resignation of Dr. F. P. Helm in September, 1941, was elected as Secretary and Executive Officer of the Board; Mr. Tom Larsen, who has served as milk inspector, was appointed as Acting Chief of Milk Sanitation to succeed Mr. Leon Bauman who recently resigned to enter medical school; Dr. Fred Mayes, who has been assistant Director of the Division of Child Hygiene, was appointed as Director of that division; Dr. H. R. Ross was appointed as Medical Consultant of the Board; Dr. G. I. Thacher of Waterville was re-elected as President of the Board and Dr. H. L. Aldrich of Caney was re-elected as Vice-President.

Plans were made at the meeting for the use, in this State, of a portable x-ray unit which was offered for loan to the Board by the United States Public Health Service.

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NARCOTIC PERMITS

The attention of all members is called to the fact that Federal narcotic permits must be renewed by June 30.

Renewal of all permits must be made thru application to the office of Collector of Internal Revenue at Wichita, in order to avoid the payment of penalty.

COUNCIL MEETING

A meeting of the Council was held in Wichita on May 14, 1942. Members present were: Dr. Henry Tihen, President, of Wichita; Dr. Herbert Atkins of Pratt; Dr. F. R. Croson of Clay Center; Dr. O. W. Davidson of Kansas City; Dr. Geo. M. Gray of Kansas City; Dr. J. L. Lattimore of Topeka; Dr. Ben H. Mayer of Ellsworth; Dr. Philip Morgan of Emporia; Dr. J. H. A. Peck of St. Francis; Dr. J. W. Randell of Marysville; Dr. G. O. Speirs of Spearville; and Dr. Marion Trueheart of Sterling.

The first order of business was the election to fill present vacancies on the Defense Board. Upon a motion made by Dr. Speirs, seconded and carried, Dr. L. S. Nelson of Salina was elected as a member of the Board and as Chairman thereof for a term of three years. Dr. Tihen explained that another vacancy has existed on the Board for the past two years by reason that the other two members of the Board were authorized to fill the vacancy and that for certain reasons this has not as yet been done. Upon a motion made by Dr. Mayer, seconded and carried, the authorization for the Board to fill the vacancy was continued and the Council requested that same be filled during the next year.

The next item of business pertained to the filling of vacancies on the Editorial Board. Upon a motion by Dr. Davidson, seconded and carried, Dr. W. M. Mills, of Topeka and Dr. L. R. Pyle of Topeka were reelected to three year terms on that Board. Upon a motion by Dr. Trueheart, seconded and carried, Dr. Mills was designated as Chairman of the Board and as Editor of the Journal for a three year term.

Following discussion of whether or not an annual session should be held next year, and if so as to the type of meeting which should be held, upon a motion made by Dr. Atkins, seconded and carried, it was agreed that an annual session should be held in Topeka during 1943. Upon a motion made by Dr. Davidson, seconded and carried, it was also agreed that the number of days of the meeting, the type of program, and the question of whether or not technical exhibits would be invited, should be determined by the Executive Committee of the Society and the Shawnee County Medical Society in accordance with future conditions and developments and as they deem advisable. Dr. Peck stated that he felt the plan used this year of inviting other county medical societies to serve as co-hosts for the annual session had been particularly successful and that he believed this plan should be continued. Dr. Lattimore was authorized to confer with the Shawnee County Medical Society for the purpose of selecting a date or dates for the next annual meeting.

Upon a motion made by Dr. Speirs, seconded and carried, a charter was issued to the Clark County Medical Society.

Adjournment followed.

COUNTY SOCIETIES

The Barber County Medical Society which has not been active for several years was recently reorganized. Officers of the society are as follows: Dr. Walter J. Pettijohn, M.D., of Kiowa as President; and Dr. J. T. Terry of Hardtner as Secretary Treasurer.

The Council has approved the issuance of a charter to the Clark County Medical Society. The officers of the new society are as follows: Dr. I. R. Burket of Ashland as President and Dr. Harold O. Closson of Ashland as Secretary-Treasurer.

The Douglas County Medical Society met in Lawrence on June 2. Dr. Lyle Powell made a report on the recent State meeting of the Society and Dr. H. L. Chambers gave a report on the United States Public Health post graduate course on Venereal Disease which was held at Little Rock, Arkansas, and which he attended.

The Harvey County Medical Society was host to the Tri-County Medical Society on June 1 in Newton. Dr. E. D. McBride of Oklahoma City and Dr. J. W. Kelso of Oklahoma City, were the guest speakers.

The Marshall County Medical Society held a dinner meeting in Marysville on May 21.

The Montgomery County Medical Society held a meeting on May 22 in Independence.

The Mitchell County Medical Society held a picnic on June 18 at Beloit. Speakers were: Dr. F. L. Loveland, Major R. W. VanDeventer and Major H. J. Dixon, all of Topeka, who discussed "Procurement and Assignment of Physicians."

At the May 19 meeting of the Sedgwick County Medical Society held in Wichita the following new officers for 1943 were elected: Dr. H. R. Hodson as President; Dr. J. V. VanVleve as Vice-President; Dr. R. H. Maxwell as Secretary; Dr. Allen Olson as Treasurer; Dr. George Gsell, Dr. J. S. Reifsneider and Dr. Charles Rombold as members of the Board of Directors and Dr. E. H. Terrill as a member of the Board of Censors.

The Southeast Kansas Medical Society held a meeting in Neodesha on June 15. Speakers for the meeting were: Dr. Joseph W. Kelso of Oklahoma City, Oklahoma, and Dr. F. L. Loveland of Topeka. Dr. Kelso spoke on "Cancer of the Cervix" and Dr. Loveland discussed "National Defense and the Medics."

The Wyandotte County Medical Society met in Kansas City on May 19. Dr. J. G. Evans of Kansas City spoke on "Paralysis of Radial Median and Ulnar Nerve" and Dr. F. E. Angle of Kansas City discussed the "Highlights of American College of Physicians Meeting." The Wyandotte County Delegates made reports of the annual meeting of the Society.

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MEMBERS

Dr. D. D. Carr, formerly a director of the Utah State Board of Health of Salt Lake City, was named full time health officer for the city of Topeka, effective June 1.

Dr. E. S. Edgerton of Wichita was one of the winners of golf prizes at the American Medical Golfing Association Tournament which was held on June 8 at the Seaview Country Club, Atlantic City.

Dr. D. T. Gammel formerly of Ulysses is now located in Hugoton. He was also recently appointed as county health officer of Grant County.

Dr. Don Carlos Peete of the University of Kansas School of Medicine was awarded honorable mention for his exhibit at the American Medical Association Meeting held in Atlantic City, New Jersey on June 9-12. Dr. Peete's exhibit was on "Acute Rheumatic Rever and Its Complications."

Dr. Lester Johnson has recently returned to Wichita from Boston, Massachusetts, where he took a post graduate course in otology at the Harvard Medical School.

Dr. C. A. Hellwig and Dr. H. Lester Reed of Wichita are the co-authors of an article entitled "Fatal Anuria Following Sulfadiazen Therapy" which was published in the June 13 issue of the Journal of the American Medical Association.

Dr. H. A. Mercer, formerly of Arkansas City, has moved to Eudora where he is a member of the medical staff of the Sunflower Ordinance Plant.

Dr. C. W. Plowman of Jewell has been appointed health officer for Jewell County to succeed the late Dr. Spencer B. Dykes of Esbon.

Dr. J. W. Yankey, formerly of Mankato, has moved to Esbon where he will practice.

DEATH NOTICES

Dr. Benjamin Bruner, 63 years of age, died May 22 at his home in Wamego, where he had practiced medicine for thirty-nine years. He was born near Onaga on March 3, 1879, and he attended the Kansas City Medical College from which he was graduated in 1903. He was a past President of the Golden Belt Medical Society and a member of the Kansas State Senate in 1916-20. He was also a member of the Pottawatomie County Medical Society.

Dr. Stephen Flatt, 70 years of age, died June 2 at his home in Independence. He was born in Green County, Illinois, in 1872 and was graduated from the St. Louis College of Physicians and Surgeons in 1898. Dr. Flatt was a charter member of the American Congress of Physical Therapy. He was also a member of the Montgomery County Medical Society.

Dr. Raymond William Moore, 69 years of age, died on May 16 at Eureka. He was born at Marshall, Missouri, on September 22, 1872. He attended the University Medical College of Kansas City from which he was graduated in 1901. He practiced first in Arcadia then moved to Eureka where he has been for the past twenty-two years. He was a member of the Butler-Greenwood County Medical Society.

Dr. James T. Reid, 62 years of age, died at his home in Iola on May 14 of cerebral hemorrhage. He was born in Lebo in 1880 and attended the Medico-Chirgical College of Kansas City, from which he was graduated in 1901. He was a member of the Kansas State Board of Health at the time of his death. He was, also, a member of the Allen County Medical Society.

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OTOLARYNGOLOGY — Two Weeks Intensive Course will be offered starting September 14th. Clinical and Special Courses every week.

OPHTHALMOLOGY—Two Weeks Intensive Course will be offered starting September 28th. Five Weeks Course in Refraction Methods starting October 19th. Informal course every week.

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BOOK REVIEWS

THE ESSENTIALS OF APPLIED MEDICAL LABORATORY TECHNIC—J. M. Feder, M.D., Director of Laboratories and Allergic Service, Anderson County Hospital, Anderson S. C. Published by the Charlotte Medical Press, Charlotte, N. C. The manual is designed for the small hospital or office laboratory. As such, it fills a need not adequately met by the many larger volumes available. The technics presented require a minimum of time, space, and equipment, but are sufficiently wide in range to meet most clinical requirements. Unfortunately, in some cases accuracy has been sacrificed to convenience, and Dr. Feder's contention that "any laboratory worker who has mastered the technic of the orderly routine procedures" can learn from the book how to perform adequately the serodiagnostic tests for syphilis, will hardly find agreement from any recognized authority on the subject. The chapter on preparation and transfusion of whole blood and plasma is terse but adequate, and for many will be one of the most valuable portions of the book. All material is presented in a format which facilitates easy reference, with many illustrations well integrated with the text. There is an adequate index. A. G.

THE 1941 YEAR BOOK OF PHYSICAL THERAPY—Edited by Richard Kovacs, M.D., Professor and Director of Physical Therapy, New York Polyclinic Medical School and Hospital; Attending Physical Therapist, Manhattan State, Harlem Valley State and West Side Hospitals, Visiting Physical Therapist, New York City Department of Correction Hospitals, Consulting Physical Therapist, New York Infirmary for Women and Children, Mary Immaculate Hospital, Jamaca, New York; Hackensack Hospital, Hackensack, New Jersey. Published by the Year Book Publishers, Inc., Chicago. Priced at $3.00.

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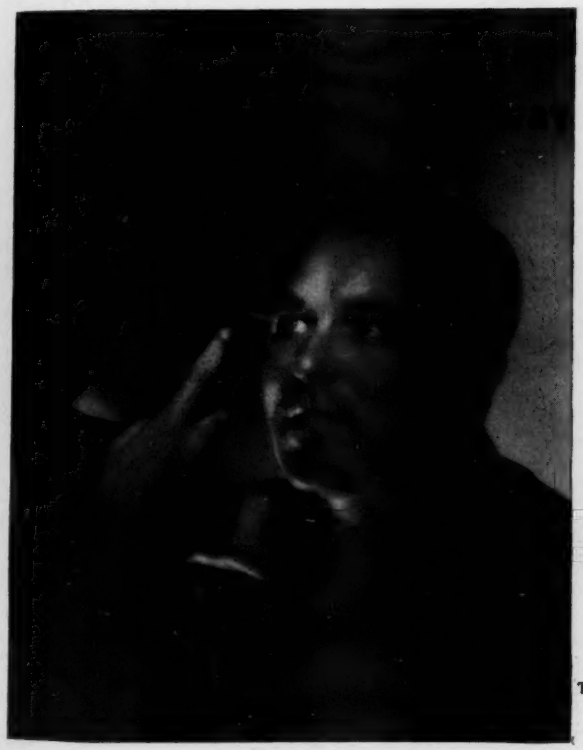

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THE DOCTOR AND THE DIFFICULT CHILD—William Moodie. Published by the Commonwealth Fund. Priced at $1.50. Dr. Moodie, the Medical Director of the London Children's Guidance Clinic, has written a practical, readable book on a subject which is filled with many controversies. The first part, dealing with general principles; is the more valuable. In the second section where he deals with symptoms and syndromes, there is necessarily much overlapping. The case material, although brief, is well chosen and well presented. The book should be on the must list for school staff. E.S.

THE MODERN ATTACK ON TUBERCULOSIS—Henry D. Chadwick, M.D., formerly Superintendent of Westfield State Sanatorium, Tuberculosis Controller of the City of Detroit, Commissioner of Public Health of the Commonwealth of Massachusetts, Medical Director of Middlesex Tuberculosis Sanitorium, and Alton S. Pope, M.D., formerly Chief, Bureau of Communicable Diseases, Department of Health, Chicago; Deputy Commissioner of Public Health and Director of the Division of Tuberculosis, Commonwealth of Massachusetts. Published by the Commonwealth Fund, 41 East 57th Street, New York, 1942. Priced at $1.00. Although little substantial progress has been made in the discovery of early tuberculosis, it is hoped that it can be eventually eradicated. Current problems of tuberculosis are herein discussed, such as the operations of regional control programs and modern procedures especially with regard to the discovery and control of the disease. Health officers, public health nurses and others concerned with the disease problems will find this little book an aid in means of control and assistance in the eventual eradication of the disease.

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BOOKS RECEIVED

DISEASES OF THE SKIN—Frank Crozer Knowles, M.D., Edward F. Corson, M.D., and Henry B. Decker, M.D., Fourth Edition, published by Lea and Febiger, of Philadelphia, Pennsylvania. Priced at $7.00. The volume contains 621 pages, illustrated.

ENDOCRINOLOGY, Clinical Application and Treatment—August A. Werner, M.D., F.A.C.P., Assistant Professor of Internal Medicine, St. Louis University School of Medicine; Associate Professor, St. Mary's Group of Hospitals; Physician Endocrine Clinic, Desloge Hospital and

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**Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154. Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60*

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the Missouri State Hospital No. 4, Farmington, Missouri. Published by Lea & Febiger, Philadelphia, Pennsylvania. This Second Edition revised of the book contains 924 pages, with 327 illustrations, engravings and color plates. Priced at $10.00

DIRECTOR OF MEDICAL SPECIALISTS, Certified by American Boards, 1942. Published by the Columbia University Press, Morningside Heights, New York. Priced at $7.00. Since the first publication was issued the directory has been increased by 18,000 certified Diplomates.

THE EYE MANIFESTATIONS OF INTERNAL DISEASE—I. S. Tassman, M.D., Associate Professor of Ophthalmology, Graduate School of Medicine, University of Pennsylvania, Philadelphia, Attending Surgeon of Wills Hospital, Philadelphia, Pennsylvania. Published by the C. V. Mosby Company of St. Louis, Missouri. The book contains 542 pages and is illustrated.

MANAGEMENT OF THE SICK INFANT AND CHILD—Langley Porter, B.S., M.D., M.R.C.S., (Eng.), L.R.C.P. (Lond.), Dean Emeritus, University of California Medical School and Professor of Medicine; Formerly Professor of Clinical Pediatrics, University of California Medical School; Formerly Visiting Pediatrician San Francisco Children's Hospital; Formerly Member Health Advisory Board of the City and County of San Francisco and William E. Carter, M.D., Director of University of California Hospital, Out-Patient Department, Formerly Chief of Children's Clinic, University of California Hospital; Formerly Attending Physician, San Francisco Hospital San Francisco. Sixth Revised Edition published by the C. V. Mosby Company of St. Louis, Missouri, 1942. The book contains 977 pages.

KANSAS MEDICAL ASSISTANTS SOCIETY

The following new officers were installed at the June 2 meeting of the Lyon County Medical Assistants Society held in Emporia: Mrs. Margaret Provost of Strong City as President; Mrs. Lyda Jones of Emporia as Vice President; Miss Mildred Thomas of Emporia as Secretary; and Miss Marjorie Madison of Emporia as Treasurer.

The Reno County Medical Assistants held a dinner meeting in Hutchinson on June 9. Dr. Etta Mundell of Hutchinson spoke on "The History of Medicine."

At the May 20 meeting of the Sedgwick County Medical Assistants Society the following new officers were elected: President, Miss Nina Wisler; Vice President, Mrs. Gretchen Moddrell; Secretary, Miss Dorothy Cipolla; Treasurer, Mrs. Marie Holman; Members of the Board of Directors: Miss Ruth Alton, Miss Ruth Funk, Mrs. Mary Elizabeth Hanes, Miss Georgia Roach, and Mrs. Eva Pedigo. One hundred dollars received from the proceeds of the hat check stand at the annual meeting of the Kansas Medical Society was given to the Red Cross. Miss Grace Booker of the Wichita Dairy Council, gave a talk on Nutrition, illustrated with movies.

The Shawnee County Medical Assistants Society installed the following new officers at a meeting held in Topeka on June 1: President, Mrs. Martha Cox; President-Elect, Miss Mary Hefner; Vice President, Miss Menell Larson; Treasurer, Miss Myrtle Coats; Secretary, Mrs. Virginia Kistler; Members of the Board of Directors, Miss May Evans, Miss Alma Engstrom and Mrs. Marjorie Euler. The annual picnic for the members of the Shawnee County Medical Society and their wives at which the members of the Shawnee County Medical Assistants Society are hostesses will be held on July 13.

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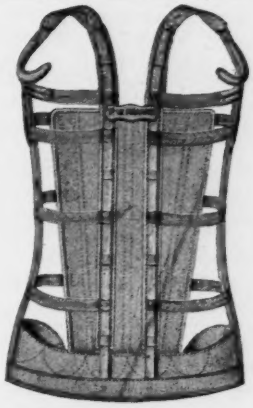

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AUXILIARY

PRESIDENT'S MESSAGE

I have just returned from the national convention of the Woman's Auxiliary to the American Medical Association at Atlantic City feeling much inspired and enthusiastic about the year's work. It seems that the difficulties which we all are encountering while our country is at war has only served to knit us more firmly together and has made us more alive to our responsibilities.

I was fratified to find that the policies of the national organization for the coming year follow very closely the outline we had last year and which we had planned to carry through this year. Nutrition is to be the main theme and as I mentioned in the April Journal, "Every Doctor's Wife in Health Defense" will be our goal for the next twelve months.

All of us are busy with first aid courses, nurses aid, Red Cross work and other defense classes, but let us work as auxiliary units so we may not lose our identity.

The post convention issue of the bulletin will be published within a few days. Every county and state officer should have her subscription in before that time, as it will be her only contact this year with national chairmen. Send your order to Mrs. L. B. Gloyne, 1310 North Twentieth Street, Kansas City, Kansas, without delay.

We are all looking forward to a splendid year under the guidance of our National President, Mrs. Frank Haggard and I promised her the full support of every unit in Kansas.

Sincerely,

Mrs. C. Omer West

WOMEN'S AUXILIARY NOTES

The Women's Auxiliary to the Sedgwick County Medical Society closed its fiscal year with a picnic lunch at the home of Mrs. Allen Olson in Wichita. The following new officers were installed for the new year: Mrs. N. C. Nash as President; Mrs. W. P. Callahan as President-Elect; Mrs. C. C. Brown as Vice President; Mrs. H. E. Friesen as Recording Secretary; Mrs. Harold Hyndman as Corresponding Secretary and Mrs. Wilfred Cox as Treasurer. The following new committee chairman were also appointed: Mrs. B. C. Beal as Historian; Mrs. R. H. Maxwell as Membership; Mrs. C. H. Dixon as Publicity; Mrs. D. W. Basham as Parliamentarian; Mrs. H. O. Anderson as Hygeia; Mrs. T. T. Holt as Social; Mrs. A. E. Bence as Public Relations; Mrs. E. D. Carter as Nominating and Mrs. A. L. Crittenden as Program.

The Women's Auxiliary to the Shawnee County Medical Society met at the home of Mrs. W. F. Abramson in Topeka on March 9. The assisting hostesses were: Mrs. H. W. Powers and Mrs. Harry Davis. Mrs. W. W. Reed gave a talk on "Red Cross Work in Civilian Defense". The following new officers were elected: Mrs. J. L. Lattimore as President; Mrs. F. C. Beelman as Vice-President; Mrs. Vernon Wiksten as Secretary; and Mrs. Harold Morris as Treasurer.

The Members of the Executive Board of the Women's Auxiliary to the Sedgwick County Medical Society met in Wichita on March 8, at the home of Dr. and Mrs. G. W. Kirby. Guests included the state officers of the Auxiliary and their husbands and the past-presidents of the organization and their husbands. Mrs. J. S. Hibbard was chairman for the meeting.

Instructions as to the special care of babies in the event of an air raid, based in part on the experience of London and other English cities, were made public today by the American Committee on Maternal Welfare.

In view of the general possibility of air raids on American cities, particularly in the coastal zones, the committee regards it as important that American mothers understand and prepare well in advance for the task of protecting their babies. The committee is composed of the leading medical, public health, nursing and hospital organizations of the country and can thus speak with authority.

Aside from the immediate need of shelter from bomb explosions, the most important fact to keep in mind, the English have learned, is that the mother's mental attitude is baby's best guarantee against air-raids.

"However frightened you may feel," the committee quoted from instructions issued by the British National Baby Welfare Council, "keep outwardly calm and unflurried, so that the child's confidence in your own protectiveness may not be shaken."

"Never speak of the raid in the child's hearing if you can avoid it. Mental impressions are formed very much earlier than most people realize. Many of the problem cases among grownups of the present day owe their condition to their parents having talked continually in the presence of the children about past and future air raids, about their own terror, and the effect of this on the child. The following words are as true today as when they were written thousands of years ago: 'In quietness and confidence shall be your strength.' "

When the raid signal sounds, the first move should be in the direction of the nearest shelter. If there is no shelter, take the baby to the safest room in the house, or to a closet under the stairs or under a table or bed, so that he may be protected from flying debris, which presents the most frequent danger.

Take with him garments enough to keep him warm according to the season, a basket or pillow on which he can lie, a first aid outfit in case of need; a toy to amuse him; his bottle of milk and bottle of water, together with extra diapers and related equipment.

The baby's ears should be blocked with cotton wool to minimize the effects of concussion, leaving plenty outside so that it may be easily withdrawn afterward.

If the raid should come while the baby is away from either house or shelter—for an airing in the park, for instance, find the nearest wall or ditch, however low, place the baby on the ground beside it, with pillows from the baby carriage or a heavy coat under and over him, and lie down beside him.

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INDEX TO ADVERTISERS

American Optical Company 275
Balyeat Hay Fever & Asthma Clinic III
Borden's Biolac 269
Capper Printing Company 273
Cook County Graduate School of Medicine . . 273
Grandview Sanitarium VI
Hanicke Mfg. Company, The P. W. 279
Holland-Rantos Company, Inc. XI
Hotel Jayhawk 280
Isle Company, The W. E. 271
Johnson Hospital 271
Latimore Laboratories III
Lilly and Company, The Eli XII
Luzier's Cosmetics and Perfumes XII
Major Clinic, The 279
Mead Johnson and Company XVI
Medical Protective Company 275
Nestle's Milk Products, Inc. XV
Oakwood Sanitarium 274
Parke Davis and Company V
Petrolagar Laboratories II
Philip Morris and Company 277
Physicians Casualty Association 279
Quinton-Duffens Optical Company 271
Ralph Sanitarium 271
Camel (The Reynolds Tobacco Co.) IX
Smith-Dorsey Company 274
Spencer Corset Company, Inc. XIV
Swope Radiological Clinic 273
Trowbridge Training School 276
Winthrop Chemical Company, Inc. IX
Zemmer Company, The 278

ADVERTISING NEWS

Eli Lilly and Company of Indianapolis, Indiana, offer the following suggestions on intolerance to diethylstilbestrol: Nausea and vomiting have been the most frequent side-effects following administration of Stilbestrol (diethylstilbestrol). A recent report (J.A.M.A., 119:400, May 30, 1942) points out that there is a definite relation between these symptoms and the nausea and vomiting of early pregnancy. If one will merely take the time to ask the prospective patient if she had nausea and vomiting with a previous pregnancy, it would serve as a warning to give not over 0.25 mg. daily as an initial dose. Desensitization may be accomplished by giving 0.1 mg. tablets once daily for five days, then increasing the dose gradually until the therapeutic level is reached. Diethylstilbestrol, Lilly (formerly known as Stilbestrol) is available in 0.1 mg. tablets, as well as in larger doses, for oral administration.

Mead Johnson and Company of Evansville, Indiana, advise for summer diarrhea in babies that Casec (calcium caseinate), which is almost wholly a combination of protein and calcium, offers a quickly effective method of treating all types of diarrhea, both in bottle-fed and breast-fed infants. For the former, the carbohydrate is temporarily omitted from the twenty-four-hour formula and replaced with eight level tablespoonfuls of Casec. Within a day or two the diarrhea will usually be arrested, and carbohydrate in the form of Dextri-Maltose may safely be added to the formula and the Casec gradually eliminated. Three to six teaspoonfuls of a thin paste of Casec and water, given before each nursing, is well indicated for loose stools in breast-fed babies. Please send for samples to Mead Johnson & Company.

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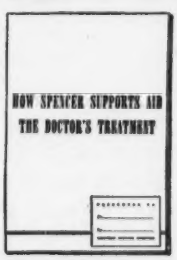

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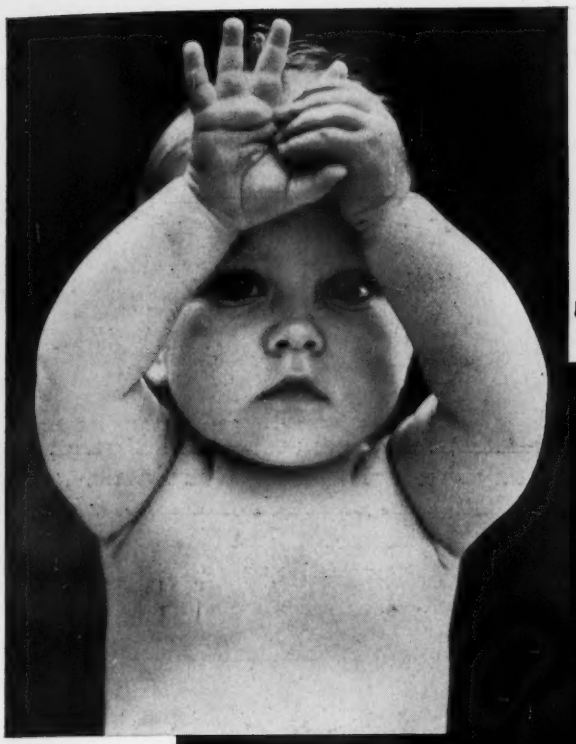

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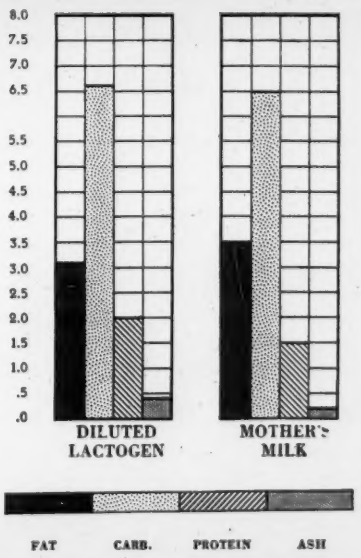

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"My own belief is, as already stated, that the average well baby thrives best on artificial foods in which the relations of the fat, sugar, and protein in the mixture are similar to those in human milk."—John Lovett Morse, A.M., M.D., Clinical Pediatrics, p. 156.

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Are the Neuritic Symptoms of Pregnancy *due to a deficiency of vitamin B_1 (thiamine)?*

SUCH common neuritic symptoms of pregnancy as pains in arms and legs, muscle weakness, and (less frequent but more serious) paralysis of the extremities may result from a shortage of antineuritic vitamins, recent investigations appear to show. Although neuronitis of pregnancy has long been considered a toxemia, no toxins have ever been identified.

Clinical observations of Strauss and McDonald lead to the conclusion that the condition is a dietary deficiency disorder similar to beriberi, caused by lack of vitamin B_1. They report recovery in their cases receiving this therapy, including dried brewers' yeast.

Hyperemesis as Cause of Avitaminosis

Wechsler observes that all cases of polyneuritis of pregnancy recorded in the literature were preceded by long periods of severe vomiting. "It would seem," he adds, "that because of actual starvation these patients suffered from avitaminosis and consequent neuritis," a view likewise held by Hirst, Luikart, and Gustafson. Plass and Mengert observe that the practice of giving high carbohydrate feedings for hyperemesis gravidarum is still more likely to cause avitaminosis.

Dried brewers' yeast, as it is far richer than any other food in vitamin B_1 (thiamine), is being used with benefit both in the prevention and treatment of polyneuritic symptoms of pregnancy. Lewy found that additions of yeast to the diet reduced electric irritability of the peripheral nerves and brought clinical improvement. Vorhaus states that he and his associates, after administering large amounts of vitamin B_1 (thiamine) to 250 patients having various types of neuritis, including that of pregnancy, observed in about 90% of cases "varying degrees of improvement, i.e., from partial relief of pain to complete disappearance of all symptoms."

Need for Vitamin B_1 (thiamine) in Lactation

Evans and Burr, Hartwell, Sure and co-workers, and Macy *et al* are among numerous authorities who find that the nursing mother also needs a supplement of vitamin B_1 (thiamine) from 3 to 5 times the normal requirement. It is accepted that during pregnancy and lactation the requirement for vitamin G (riboflavin) is increased.

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